



# **CMOS / Mega-Pixel CMOS PT IR Internet Camera**

## **ICA-230 / ICA-M230**

### **User's Manual**

Version: 2.00

Date: April, 2009

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## **Federal Communication Commission Interference Statement**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio technician for help.

## **FCC Caution**

To assure continued compliance. (example-use only shielded interface cables when connecting to computer or peripheral devices). Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the Following two conditions: ( 1 ) This device may not cause harmful interference, and ( 2 ) this Device must accept any interference received, including interference that may cause undesired operation.

## **Federal Communication Commission (FCC) Radiation Exposure Statement**

This equipment complies with FCC radiation exposure set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20 cm (8 inches) during normal operation.

## Safety

This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical equipment. All guidelines of this and of the computer manufacture must therefore be allowed at all times to ensure the safe use of the equipment.

## CE Mark Warning

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

## WEEE Regulation



To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.

## Revision

User's Manual for PLANET CMOS / Mega-Pixel CMOS PT IR Internet Camera

Model: ICA-230 / ICA-M230

Rev: 2.0 (April. 2009)

Part No. EM-ICA230\_M230\_v2

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# 1. Introduction

Thank you for purchasing the CMOS / Mega-Pixel CMOS PT IR Internet Camera. It is versatile and high image solution of surveillance application for day and night. The Pan/Tilt Internet Camera is also a stand-alone camera system with a built-in processor and web server that provides highest quality video and system performance.

## 1.1 Overview

This user's manual explains how to operate the CMOS / Mega-Pixel CMOS PT IR Internet Camera from a computer, unless model name specified terms "PT Internet Camera" will be used for these two models. Basically, the user's manual is written to be read on the computer display. However, users might consider printing it out to access easily and read it before you operate the Network Camera. This guide shows how to quick set up the three cameras, unless model name specified terms "PT Internet Camera" will be used for these three models.

## 1.2 Features

- 1.3Mega-Pixel CMOS sensor built-in (ICA-M230 only)
- Offers pan range of 355-degrees and tilt range of 100-degrees to control over network.
- 2-way audio with built-in microphone and adding external speaker
- 4 times brighter IR LED than ordinary IR LED and visible distance up to 10 meter
- Multi-profile encoder supports MPEG-4 and M-JPEG video compression simultaneously
- 3GPP for 3G mobile remote applications
- Clear and high resolution quality pictures for day and night
- Plug-N-Watch is able to simplify system integration in existing network environment
- Because of supporting TCP/IP networking, SMTP e-mail and HTTP public network standards, PT Internet Camera can be applied and utilized to a mixed IP network environment
- Easy configuration: Network administrators can configure and manage via Windows-based utility or web interface
- DDNS, PPPoE and FTP uploading supports more alternatives in surveillance network
- Motion Detection: the motion detection feature can monitor any suspicious movement in specific area
- Compliant with IEEE 802.3af standard PoE interface
- Cam Viewer - Central management software supported

## 1.3 Package Contents

PT Internet Camera x 1

Power Adapter x 1

Camera Mount Kit x 1

CD Disk x 1

Quick Installation Guide x 1

- NOTE:**
1. If any of the above items are missing, please contact your dealer immediately.
  2. Using the power supply that is not the one included in PT Internet Camera packet will cause damage and void the warranty for this product.

## 2. Basic Setup

This chapter provides details of installing and configuring the PT Internet Camera

### 2.1 System Requirements

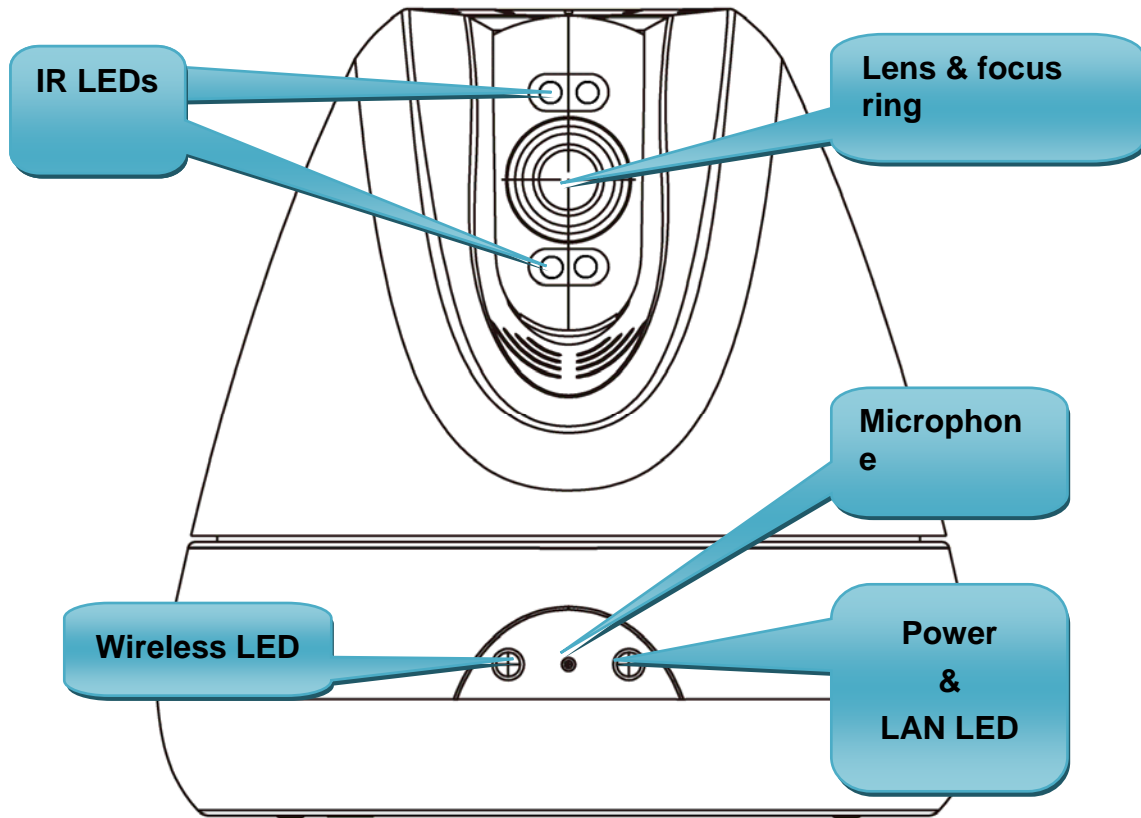
Network Interface	10/100MBase-TX Ethernet
Monitoring System	Recommended for Internet Explorer 6.0 or later
System Hardware	<ul style="list-style-type: none"><li>• CPU: Pentium 4, 3.0GHz or above</li><li>• Memory Size : 512 MB (512 MB or above Recommended )</li><li>• VGA card resolution : 1024 x 768 or above</li><li>• VGA card memory : 64 MB or above (at least 128 MB for Megs-pixel resolution)</li><li>• <b>Network bandwidth: In VGA resolution mode, minimum upload bandwidth is 1Mbps.</b></li></ul>

**NOTE:** The listed information is minimum system requirements only. Actual requirement will vary depending on the nature of your environment.



## 2.2 Physical Description

### 2.2.1 Front Panel



<b>IR LEDs</b>	These LEDs are Infra-Red type. It's very useful for low-lux environment to provide supplementary light source for image sensor.
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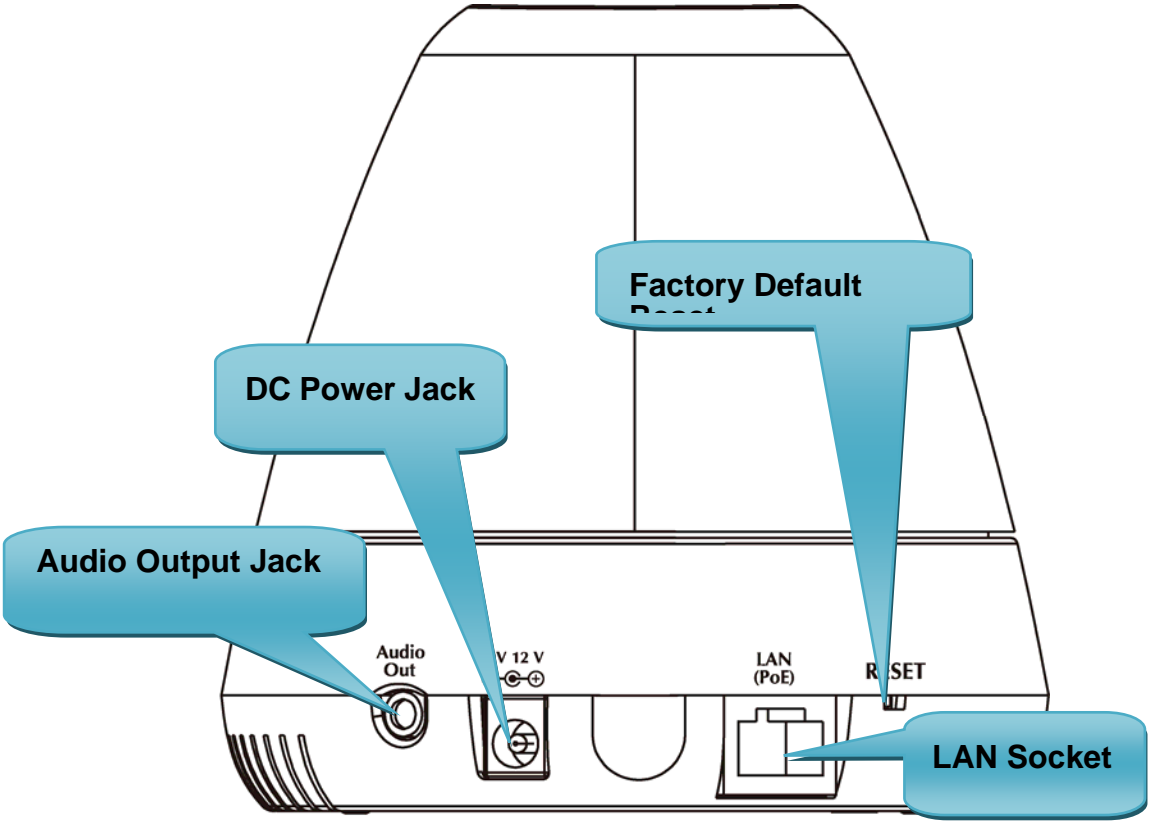
<b>Lens &amp; focus ring</b>	User could use this ring to adjust focus manually.
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<b>Power &amp; LAN LED</b>	This LED is used to indicate whether DC power is on or not. In addition, this LED will be flashing while network accessing via Ethernet.
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<b>Wireless LED</b>	This LED is used to indicate the wireless accessing of the Camera. *Future feature
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<b>Microphone</b>	The Camera has built-in an internal microphone. This microphone is hidden in the pinhole located on the front panel.
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2.2.2 Rear Panel

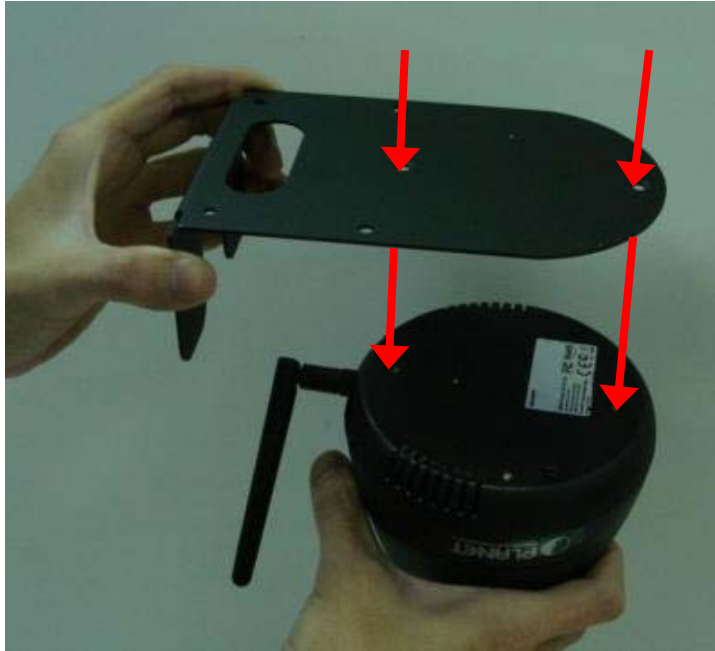


Audio Output Jack	Audio-out Jack allows this device to output audio or alerting sound.
DC Power Jack	<p>The input power is 12VDC.</p> <p><b>NOTE</b> Only use the power adapter supplied with PT Internet Camera. Otherwise, the product may be damaged.</p>
LAN Socket	<p>The LAN socket is a RJ-45 connector for connections to 10Base-T Ethernet or 100Base-TX Fast Ethernet cabling. This Ethernet port built N-Way protocol can detect or negotiate the transmission speed of the network automatically. Please use Category 5 “straight through” cable to connect the PT Internet Camera to a 100Mbps Fast Ethernet network switch or hub. The LAN socket is compliant with IEEE802.3af standard PoE interface.</p> <p><b>NOTE</b> If you need to connect the PT Internet Camera to PC or notebook directly, you should use cross over cable instead.</p>
Factory Default Reset	This button is hidden in the pinhole. Please refer to the Appendix A in manual for more information.

## 2.3 Hardware Installation

### 2.3.1 Ceiling Mount

1. Fix the camera to L-type bracket with two supplied screws.



2. Fix the bracket and camera to the ceiling using two hollow wall anchors and screws.



### 2.3.2 Wall Mount

1. Fix the L-type bracket to the wall using two holly wall anchors and screws.



2. Fix the camera to L-type bracket with two supplied screws.



### 2.3.3 Physical Installation

#### 1. Connect an Ethernet cable

Connect the LAN cable on the PT Internet Camera to the network device (hub or switch).

**NOTE:** If there has a IEEE802.3af PoE switch in your network, you can connect the PT Internet Camera LAN cable to this PoE switch to obtain power. The power adapter is unnecessary when PT Internet Camera is connected to a PoE switch.

#### 2. Check the LED (Front Panel)

The LED is defined to identify LAN connection type. When LAN port is connected, the LED will be green.

#### 3. Place the PT Internet Camera on the table or fix it onto ceiling or wall

Use screws to fix the PT Internet Camera onto the ceiling or wall. You could also put the PT Internet Camera in the table directly.

#### 4. Attach the power supply

Plug in power adapter and connect to power source. After power on, PT Internet Camera will start to operate.

**NOTE:** Only use the power adapter supplied with PT Internet Camera. Otherwise, the product may be damaged

The power adapter is unnecessary when PT Internet Camera is connected to a PoE switch. Otherwise, the product may be damaged when PT Internet Camera is connected to a PoE switch and power adapter simultaneously.

#### 5. Attach Speaker to PT Internet Camera (option)

If user needs not only video stream but also audio stream, then the speaker should be attached to PT Internet Camera.

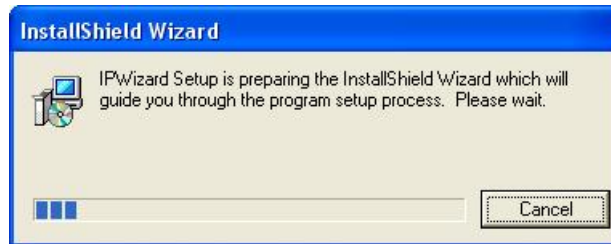
## 2.4 Initial Utility Installation

This chapter shows how to quick set up your PT Internet Camera. The PT Internet Camera is with the default settings. However to help you find the networked camera quickly the windows utility-IPWizard can search the cameras in the network that shall help you to configure some basic setting before you started advanced management and monitoring.

**NOTE:** The ICA-M230 installation steps are similar. Below is the installation of ICA-230.

1. Insert the bundled CD into the CD-ROM drive to launch the autorun program. Once completed, a welcome menu screen will appear. Please click the IP camera model name to next page.
2. Click the "IPWizard" hyperlink; you will see the InstallShield Wizard dialog box as below.

**NOTE:** If the welcome screen does not appear, click "Start" at the taskbar. Then, select "Run" and type "D:\Utility\IPWizard\setup.exe", assume D is your CD-ROM drive.



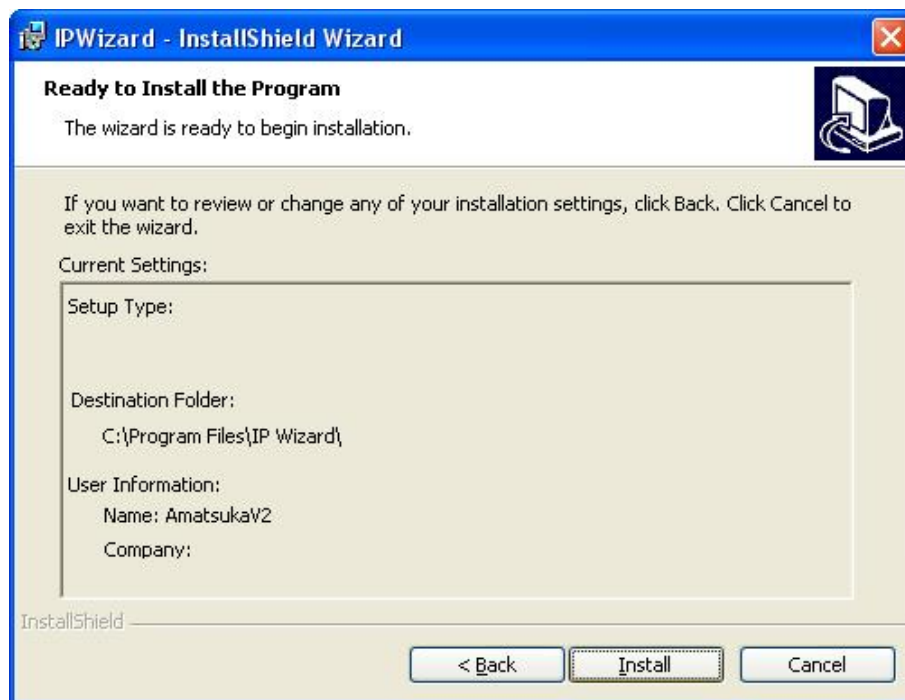
3. The "Welcome to the InstallShield Wizard for IPWizard" will display on the screen and click "Next" to continue.



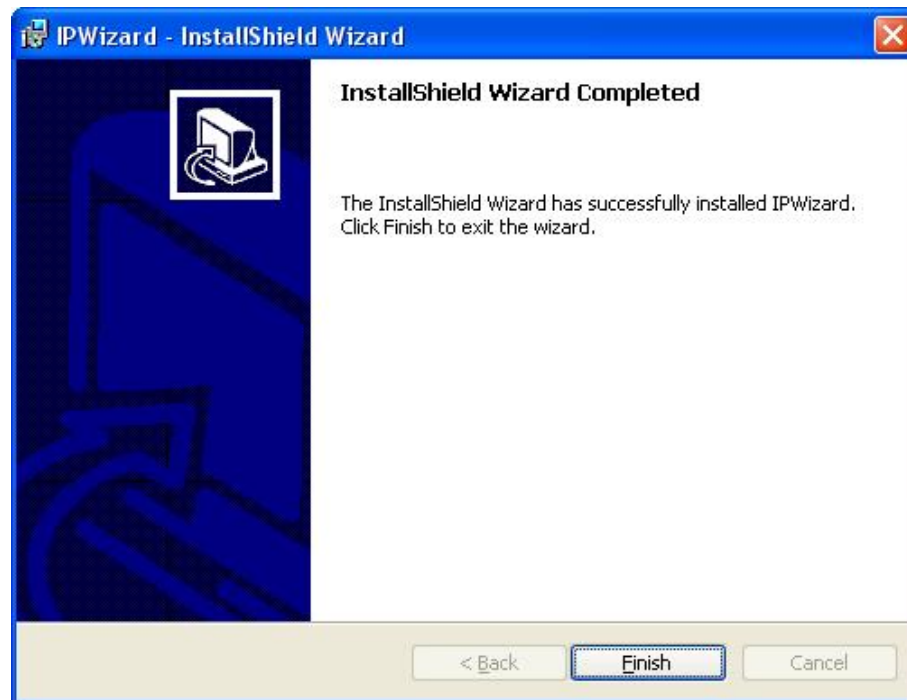
4. Please click "Next" to install with original settings, or you may click "Change..." button to modify the install folder then press "Next" to continue.



5. Please click "Install" to start the installation.



6. Please click "Finish" to complete the installation



7. Please double-click the utility icon on the desktop then you will see the PT Internet Camera utility.



## 2.5 IPWizard

When you installed the PT Internet Camera on a LAN environment, you may execute IPWizard to discover I PT Internet Camera's IP address and set up related parameters in the PT Internet Camera.

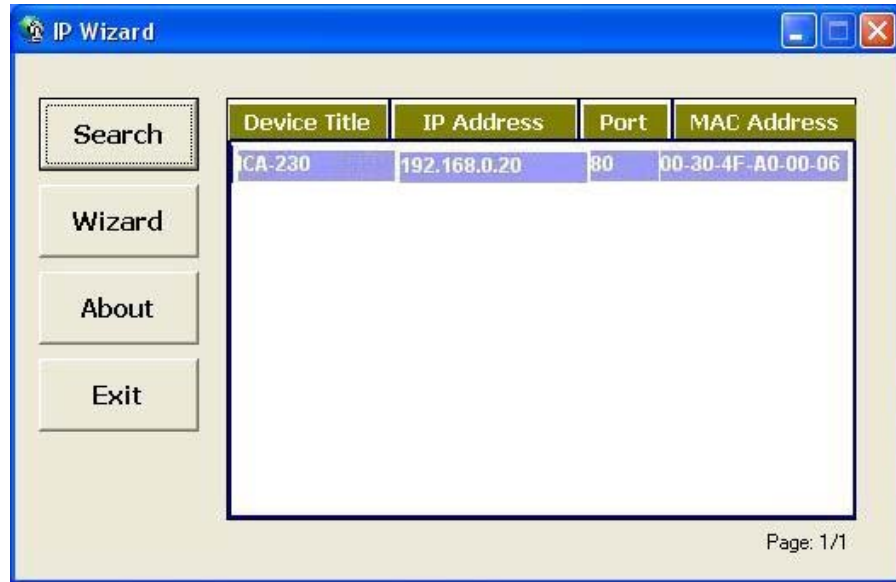
### Search Button:

When click **Search** button, a searching window will pop up. IPWizard is starting to search PT Internet Camera on the LAN. The message "No Network Devices Is Found" will appear on this window if IPWizard cannot find any camera on the LAN. Otherwise, existed cameras will be listed. If total quantity is over, please move the cursor to Information Box. Click on the left button of the mouse and the Information Box of the Listing Window will roll upward automatically; on the contrary, move the cursor to the Information Box on the top of Listing Window and click on the left button of the mouse and Listing Window will roll downward.



### Wizard Button:

When IPWizard finds your camera, **Wizard** button will become available. Please select the device you would like to configure in the Information Box. The device will turn into yellow which means this device is selected, please press “**Wizard**” button. Or you could double click the mouse left key on the selected camera. Relative settings will be carried out. Details of Install Wizard will be specified as Section 2.6.



### About Button:

When click “About” button, you will see the version information of IPWizard shown in the pop-up dialog box.



### Exit Button:

Click “Exit” button will close the IPWizard Program.

## 2.6 Configure With IPWizard

After pressing Installation Wizard, please key in Username and Password of the device when login dialog box appears on the screen. You can login the setup page if authorized name and password is correct. Default **username/password** for machine login: **admin/<no password>**

A login dialog box titled "Login" with a blue border and a close button in the top right corner. It features a small icon of a key and a padlock. Below the icon, there are two labels: "Administrater:" and "Password:", each followed by a text input field. At the bottom, there are two buttons: "Submit" and "Cancel".

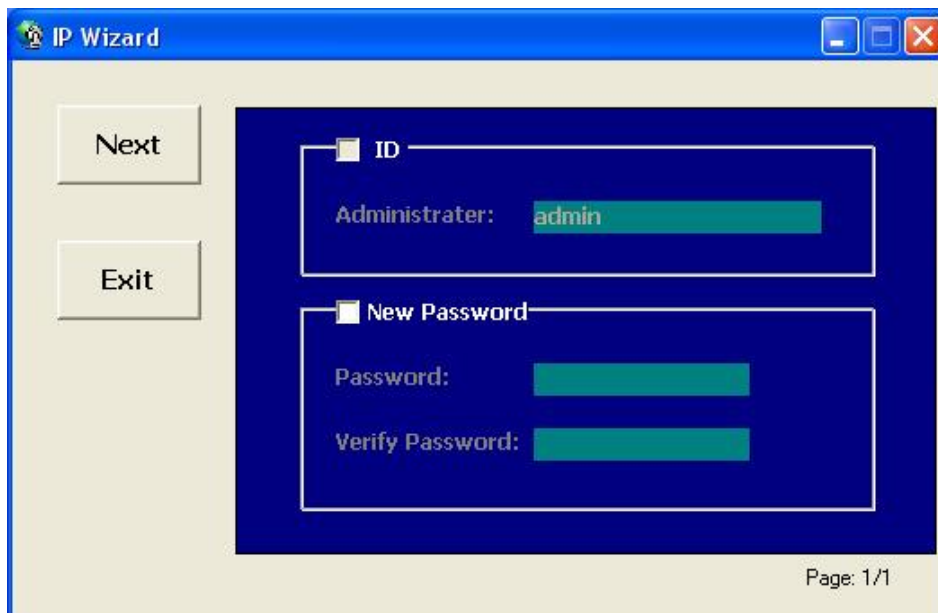
Administrater:

Password:

Submit Cancel

### Wizard Page 1: Username and Password

This page is about the change of the authorized user name and password of the selected device. If you don't want to change them, please click "Next" to move to the next page. Press "Exit" button if you don't want to set up right now. If you want to change authorized name or password, you have to check the box in front of **ID** or **New Password**. Authorized Username should contain at least 5~20 characters and New Password should contain at least 4~8 characters.

A screenshot of the "IP Wizard" window, titled "IP Wizard" with a blue border and standard window controls. On the left side, there are two buttons: "Next" and "Exit". The main area has a dark blue background and contains two sections. The first section, labeled "ID", has a checkbox that is checked and a text input field containing "admin". The second section, labeled "New Password", has a checkbox that is unchecked and two text input fields, one for "Password:" and one for "Verify Password:". At the bottom right, it says "Page: 1/1".

Next

Exit

☒ ID

Administrater:

☐ New Password

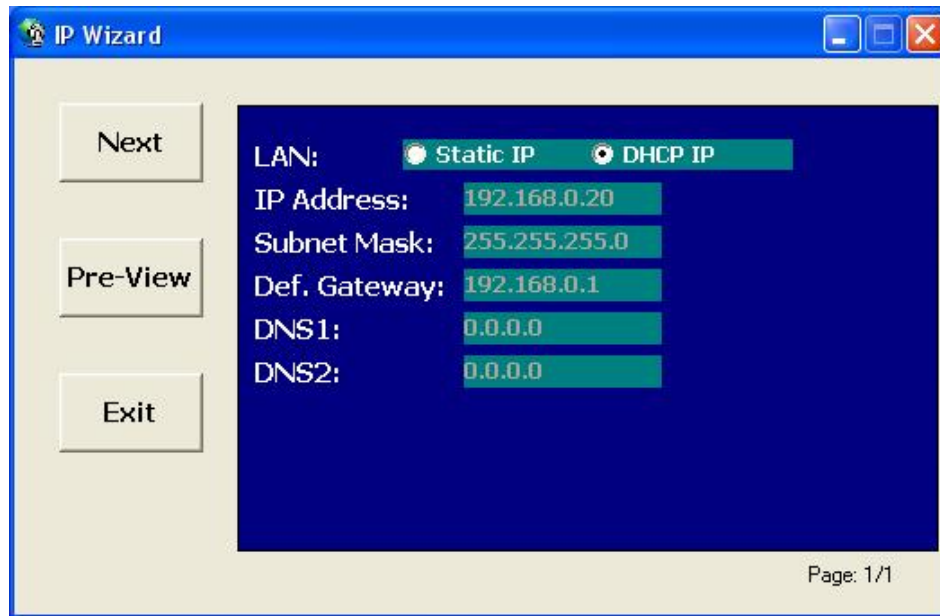
Password:

Verify Password:

Page: 1/1

## Wizard Page 2: LAN Setting

This page is about the select of Static IP or DHCP ON.



The screenshot shows a window titled "IP Wizard" with a blue title bar. On the left side, there are three buttons: "Next", "Pre-View", and "Exit". The main area has a dark blue background. At the top, there are two radio buttons: "Static IP" (which is selected) and "DHCP IP". Below these, there are five text input fields with green borders, each preceded by a label: "IP Address:" with the value "192.168.0.20", "Subnet Mask:" with "255.255.255.0", "Def. Gateway:" with "192.168.0.1", "DNS1:" with "0.0.0.0", and "DNS2:" with "0.0.0.0". In the bottom right corner of the window, it says "Page: 1/1".

**LAN:** You can configure this PT Internet Camera to obtain its address automatically or manually assign. If there is a DHCP server in your network environment and you select "**DHCP ON**", PT Internet Camera can automatically obtain an IP address. If you don't have DHCP server or you want to use fixed IP address, please select "**Static IP**" and fill in the following fields with proper parameters.

**IP Address:** IP address is a unique number for identifies this device on the WAN or LAN. These numbers are usually shown in groups separated by periods, for example: 192.168.0.200

**Subnet Mask:** Subnets allow network traffic between hosts to be separated based on the network's configuration. In IP networking, traffic takes the form of packets. IP subnets advance network security and performance to some level by organizing hosts into logical groups. Subnet masks contain four bytes and usually appear in the same "dotted decimal" data. For example, a very common subnet mask in its binary demonstration 11111111 11111111 11111111 00000000 will usually be shown in the corresponding, more readable form as 255.255.255.0.

**Def. Gateway:** A gateway is a piece of software or hardware that passes information between networks. You'll see this term most often when you either log in to an Internet site or when you're transient email between different servers.

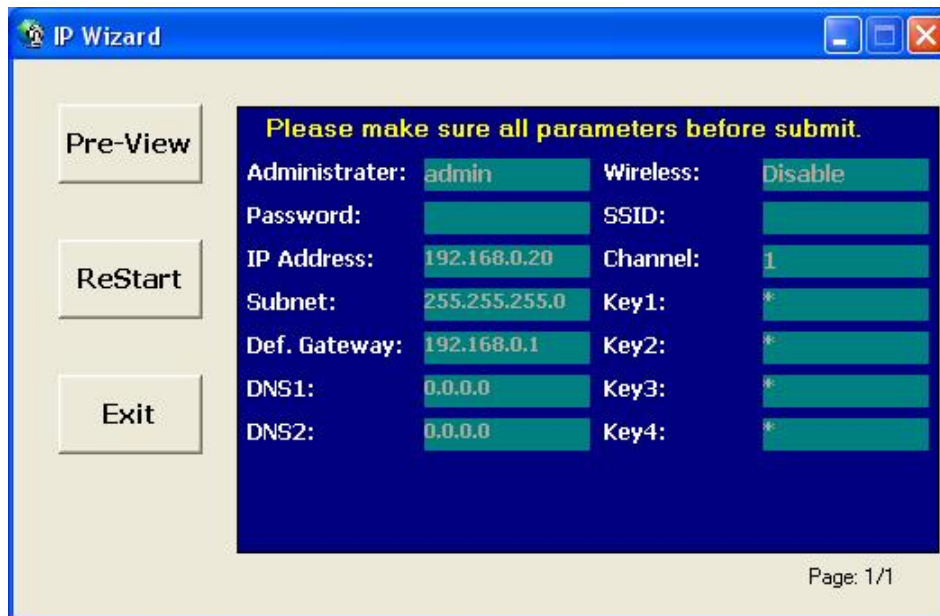
**DNS1:** When you send email or position a browser to an Internet domain such as xxxxx.com, the domain name system translates the names into IP addresses. The term refers to two things: the conventions for naming hosts and the way the names are control across the Internet.

**DNS2:** The same function as DNS1. It is optional, not necessary

**Note:** If no IP address is assigned after 30 seconds, the PT Internet Camera will work with its default IP address **192.168.0.20**. User may now open your web browser, and key in <http://192.168.0.20> in the address bar of your web browser to logon PT Internet Camera's web configuration page.

### Wizard Page 3: Confirmation

This page shows the new configurations. If it is correct, please press "Submit" icon and the setting information will be save to your PT Internet Camera. Click on "Exit" to close this window.



The image shows a software window titled "IP Wizard" with a blue title bar and standard Windows window controls. On the left side, there are three buttons: "Pre-View", "ReStart", and "Exit". The main area of the window has a dark blue background with yellow text that reads "Please make sure all parameters before submit." Below this, there are two columns of configuration parameters, each with a label and a text input field. The parameters are: Administrator (admin), Password (empty), IP Address (192.168.0.20), Subnet (255.255.255.0), Def. Gateway (192.168.0.1), DNS1 (0.0.0.0), DNS2 (0.0.0.0), Wireless (Disable), SSID (empty), Channel (1), Key1 (\*), Key2 (\*), Key3 (\*), and Key4 (\*). At the bottom right of the window, it says "Page: 1/1".

Please make sure all parameters before submit.	
Administrater:	admin
Wireless:	Disable
Password:	
SSID:	
IP Address:	192.168.0.20
Channel:	1
Subnet:	255.255.255.0
Key1:	*
Def. Gateway:	192.168.0.1
Key2:	*
DNS1:	0.0.0.0
Key3:	*
DNS2:	0.0.0.0
Key4:	*

Page: 1/1

## 2.7 UPnP Function

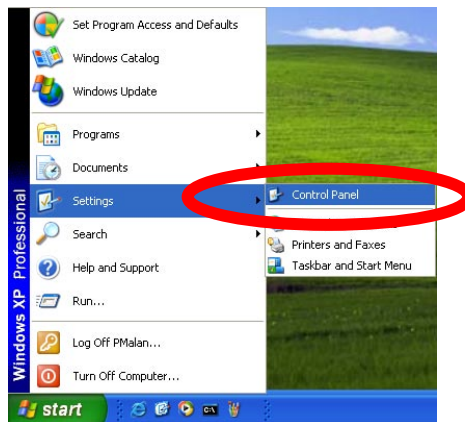
**NOTE:** The following operates under ICA-230. The procedure also applies to ICA-M230.

Windows 2000 does not support UPnP feature.

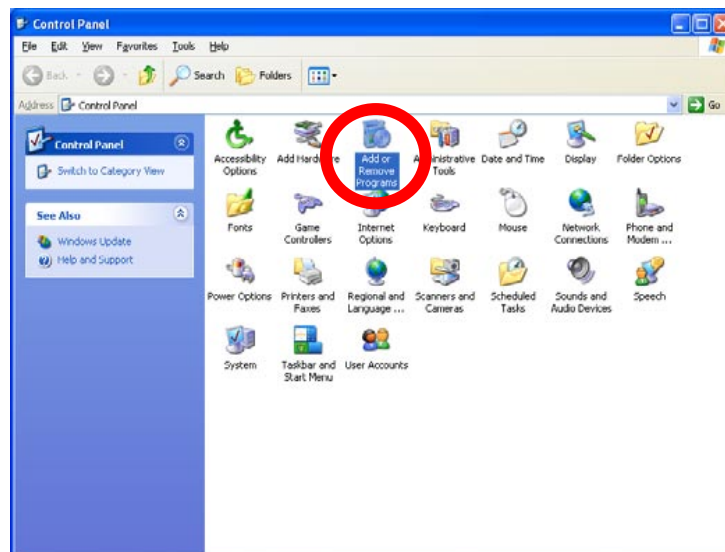
### 2.7.1 Windows XP

UPnP™ is short for Universal Plug and Play, which is a networking architecture that provides compatibility among networking equipment, software, and peripherals. This device is an UPnP enabled device. If the operating system, Windows XP, of your PC is UPnP enabled, the device will be very easy to configure. Use the following steps to enable UPnP settings only if your operating system of PC is running Windows XP.

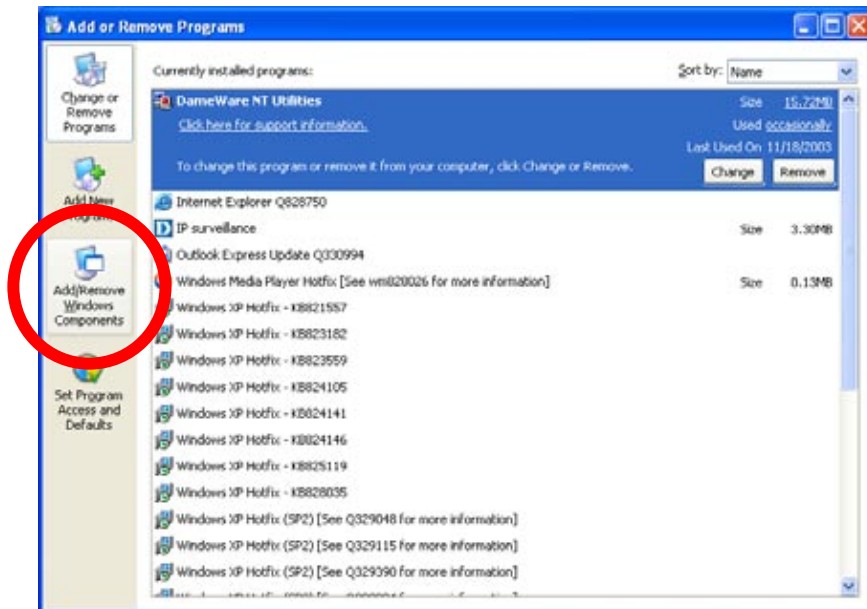
Go to **Start > Settings**, and Click **Control Panel**



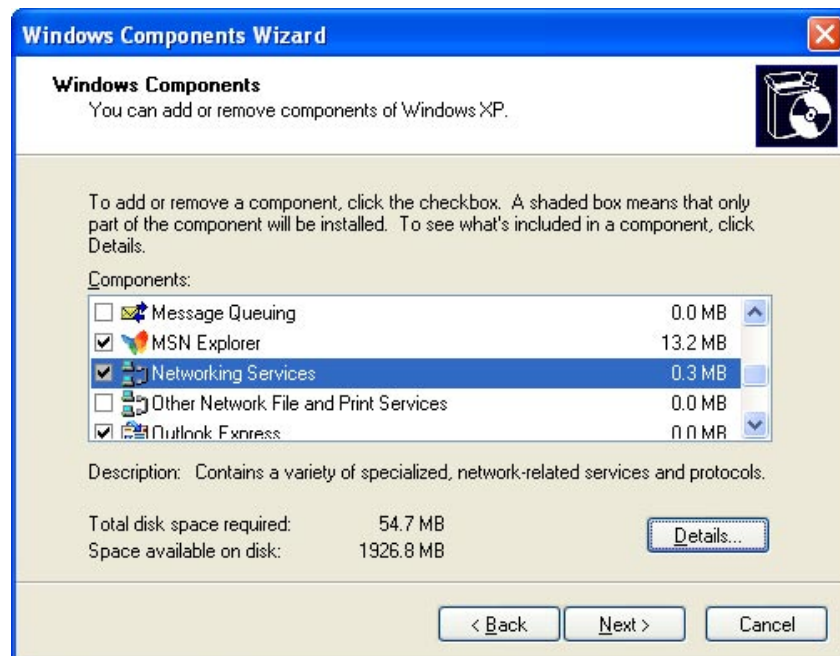
The "Control Panel" will display on the screen and double click **Add or Remove Programs** to continue



The “Add or Remove Programs” will display on the screen and click **Add/Remove Windows Components** to continue.

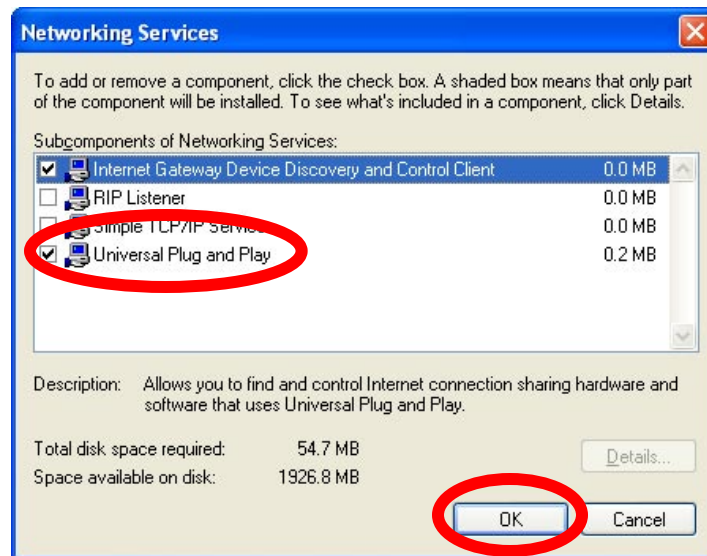


The following screen will appear, select **Networking Services** and click **Details** to continue

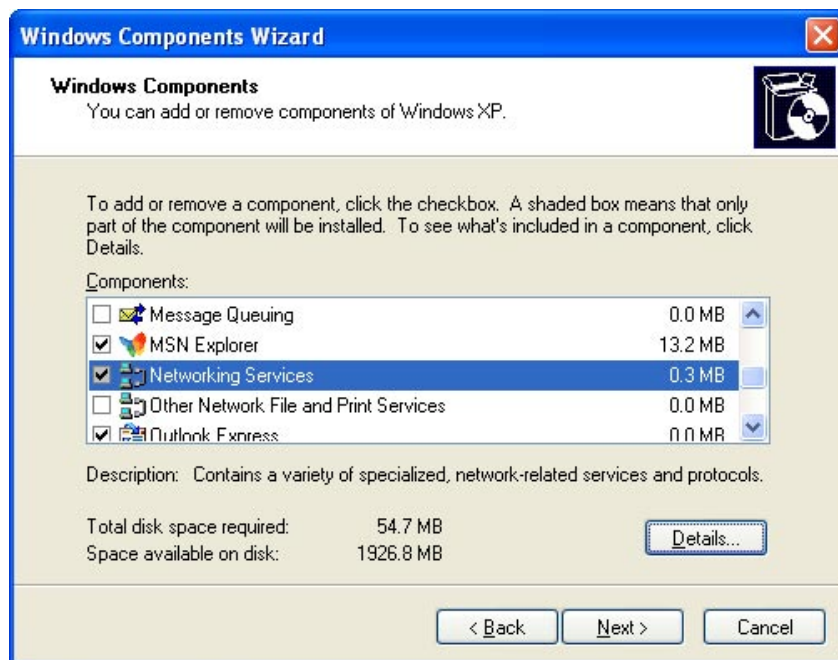




The “Networking Services” will display on the screen, select **Universal Plug and Play** and click **OK** to continue.

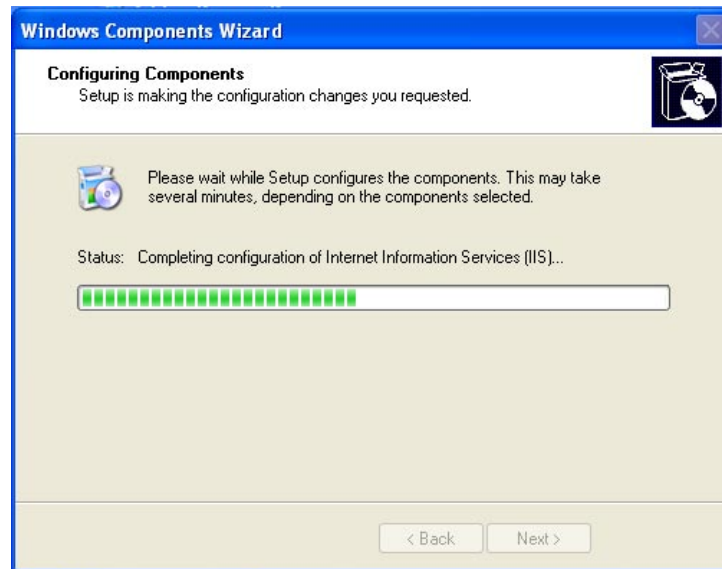


Please click **Next** to continue

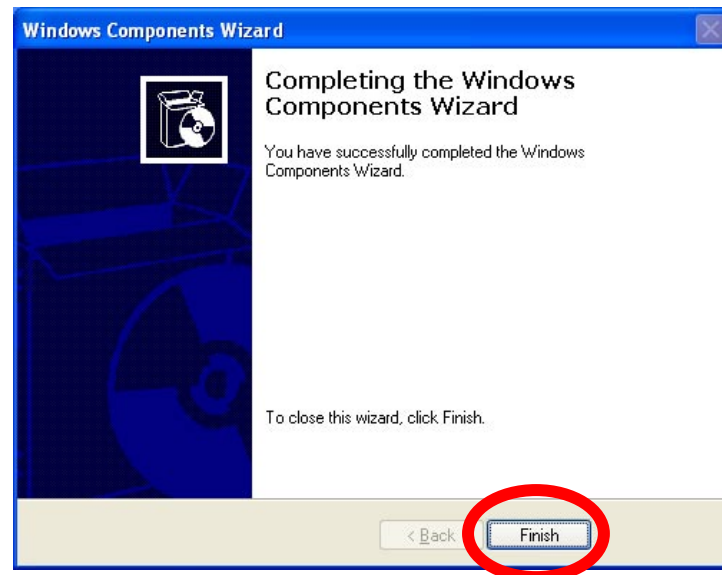




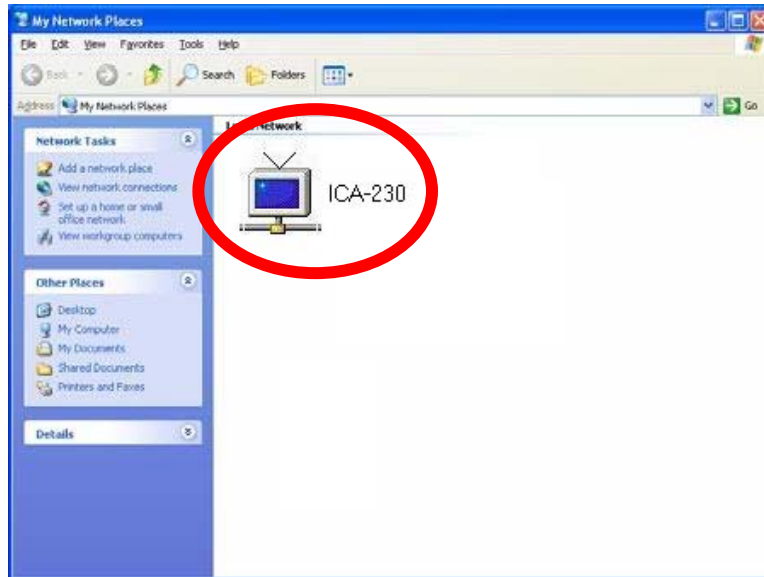
The program will start installing the UPnP automatically. You will see the below pop-up screen, please wait while Setup configures the components.



Please click **Finish** to complete the UPnP installation



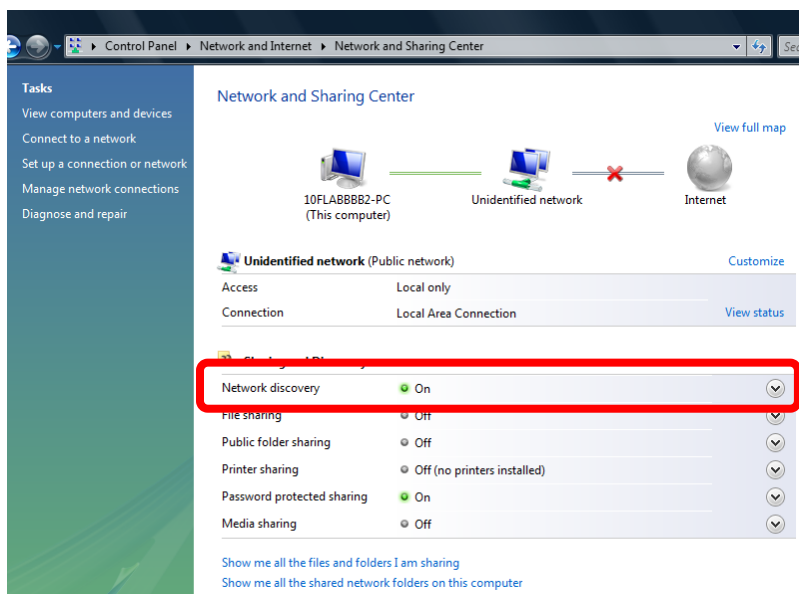
Double-click **My Network Places** on the desktop, the “My Network Places” will display on the screen and double-click the UPnP icon with PT Internet Camera to view your device in an internet browser.



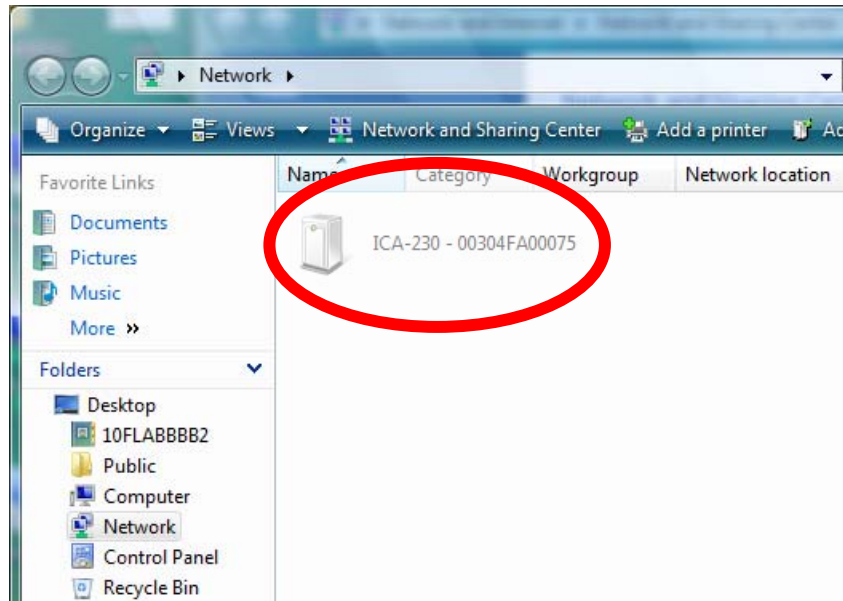
## 2.7.2 Windows Vista

UPnP™ is short for Universal Plug and Play, which is a networking architecture that provides compatibility among networking equipment, software, and peripherals. This device is an UPnP enabled device. If the operating system, Windows Vista, of your PC is UPnP enabled, the device will be very easy to configure. Use the following steps to enable UPnP settings only if your operating system of PC is running Windows Vista.

Go to **Start > Control Panel > Network and Internet > Network and Sharing Center**, and turn on **Network Discovery**.



Double-click **My Network Places** on the desktop, the “My Network Places” will display on the screen and double-click the UPnP icon with PT Internet Camera to view your device in an internet browser.



## 2.8 Setup ActiveX to use the PT Internet Camera

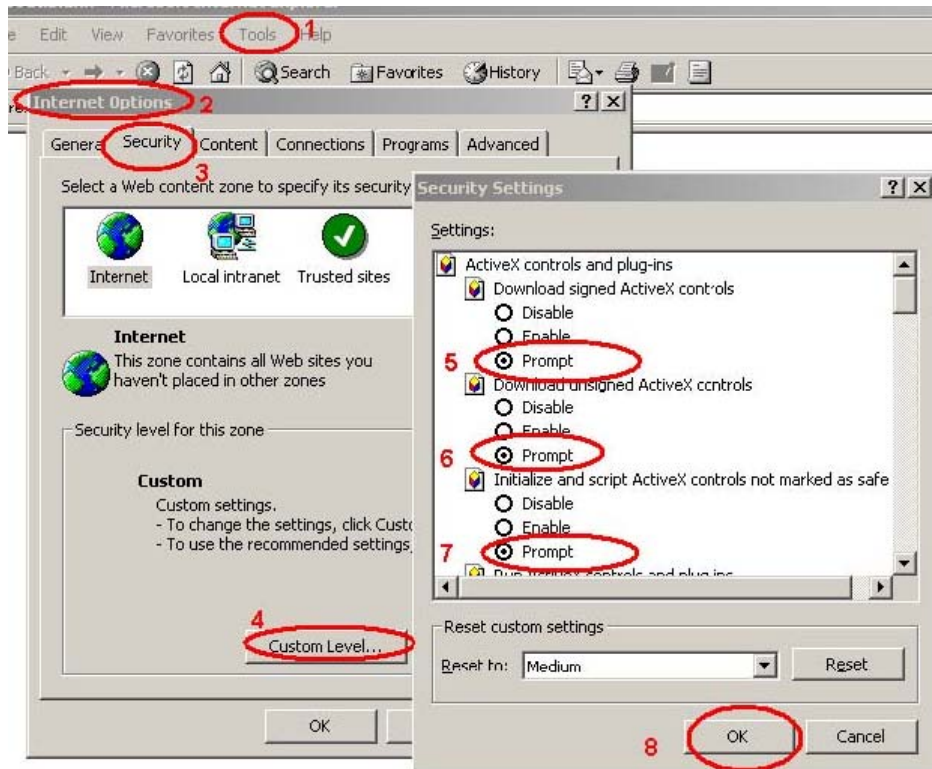
The PT Internet Camera web pages communicate with the PT Internet Camera using an ActiveX control. The ActiveX control must be downloaded from the PT Internet Camera and installed on your PC. Your Internet Explorer security settings must allow for the web page to work correctly. To use the PT Internet Camera, user must setup his IE browser as follows:

### 2.8.1 Internet Explorer 6 for Windows XP

From your IE browse → "Tools" → "Internet Options..." → "Security" → "Custom Level...", please setup your "Settings" as follow.

Set the first 3 items

- Download the signed ActiveX controls
- Download the unsigned ActiveX controls
- Initialize and script the ActiveX controls not masked as safe to Prompt



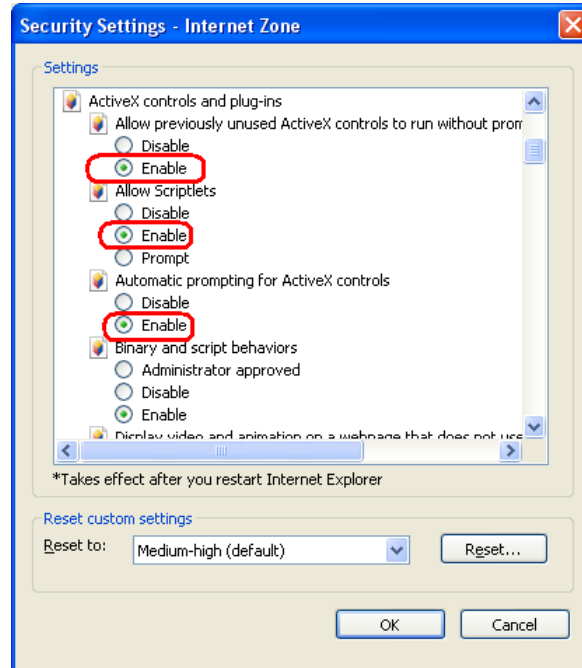
By now, you have finished your entire PC configuration for PT Internet Camera.

## 2.8.2 Internet Explorer 7 for Windows XP

From your IE browse → "Tools" → "Internet Options..." → "Security" → "Custom Level...", please setup your "Settings" as follow.

Set the first 3 items

- *Allow previously unused ActiveX control to run...*
- *Allows Script lets*
- *Automatic prompting for ActiveX controls*

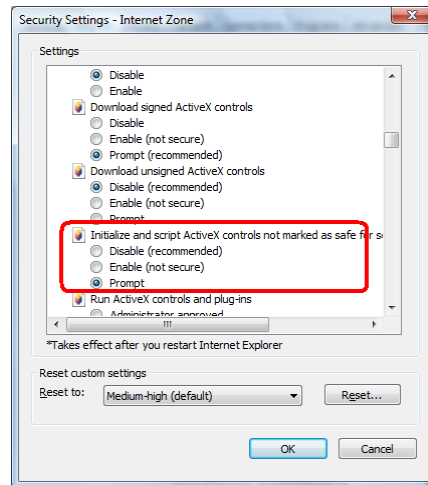
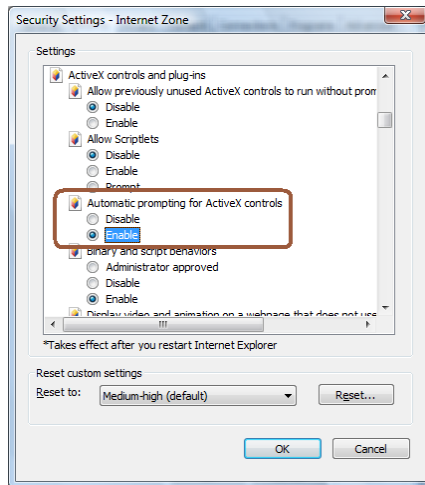


By now, you have finished your entire PC configuration for PT Internet Camera.

### 2.8.3 Internet Explorer 7 for Windows Vista

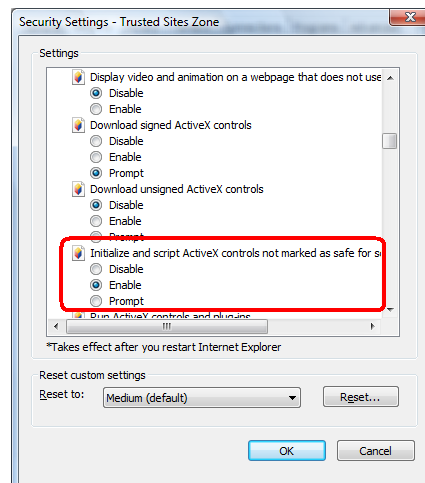
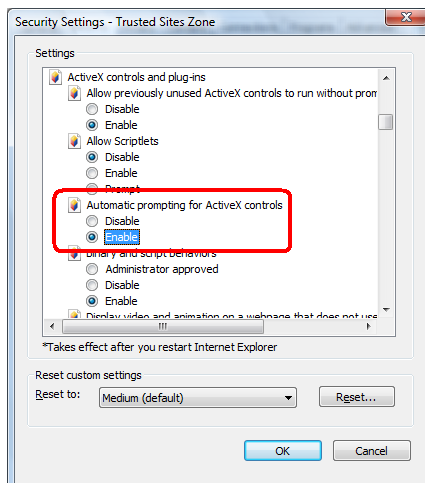
From your IE browse → "Tools" → "Internet Options..." → "Security" → "Internet" → "Custom Level...", please setup your "Settings" as follow.

- Enable "Automatic prompting for ActiveX controls"
- Prompt "Initialize and script active controls not marked...."



From your IE browse → "Tools" → "Internet Options..." → "Security" → "Trusted Sites" → "Custom Level...", please setup your "Settings" as follow.

- Enable "Automatic prompting for ActiveX controls"
- Prompt "Initialize and script active controls not marked...."



By now, you have finished your entire PC configuration for PT Internet Camera.

## 3. Web-based Management

This chapter provides setup details of the PT Internet Camera's Web-based Interface.

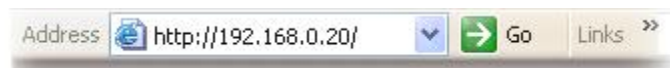
### 3.1 Introduction

The ICA-230 / ICA-M230 can be configured with your Web Browser. Before configure, please make sure your PC is under the same IP segment with PT Internet Camera.

### 3.2 Connecting to PT Internet Camera

- Use the following procedure to establish a connection from your PC to the PT Internet Camera.
- Once connected, you can add the PT Internet Camera to your Browser's Favorites or Bookmarks.

Start the web browser on the computer and type the IP address of the PT Internet Camera. The Default IP: “ <http://192.168.0.20/> ”

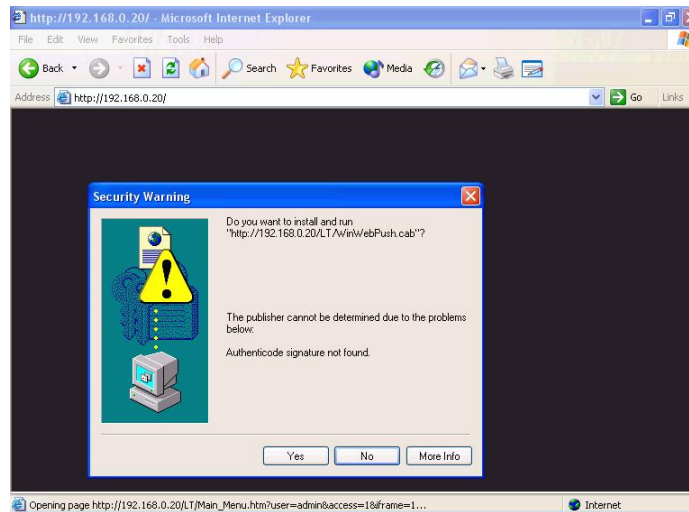


The login window of PT Internet Camera will appear, Default login **username/password** is :  
**admin/ <no password>**

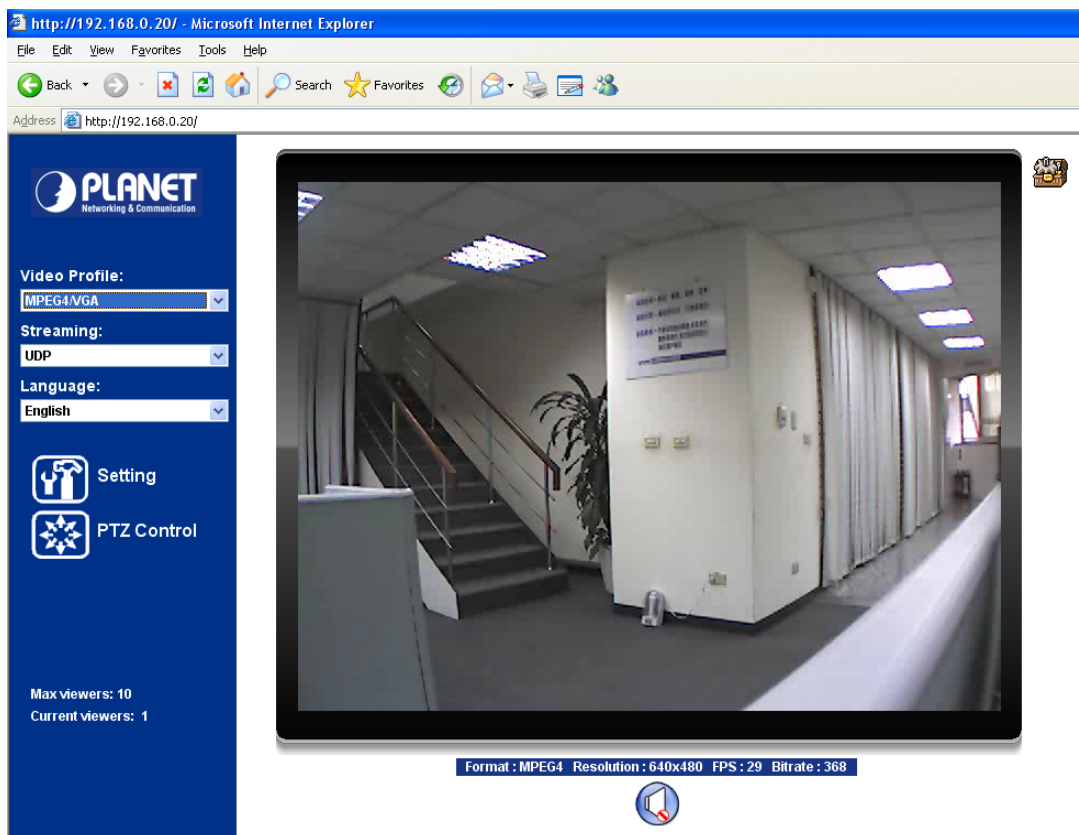


**NOTE:** If the User name and Password have been changed with IPWizard, please enter the new User name and Password here.

Web browser may display the “Security Warning” window, select “Yes” to install and run the ActiveX control into your PC.



After the ActiveX control was installed and run, the first image will be displayed.

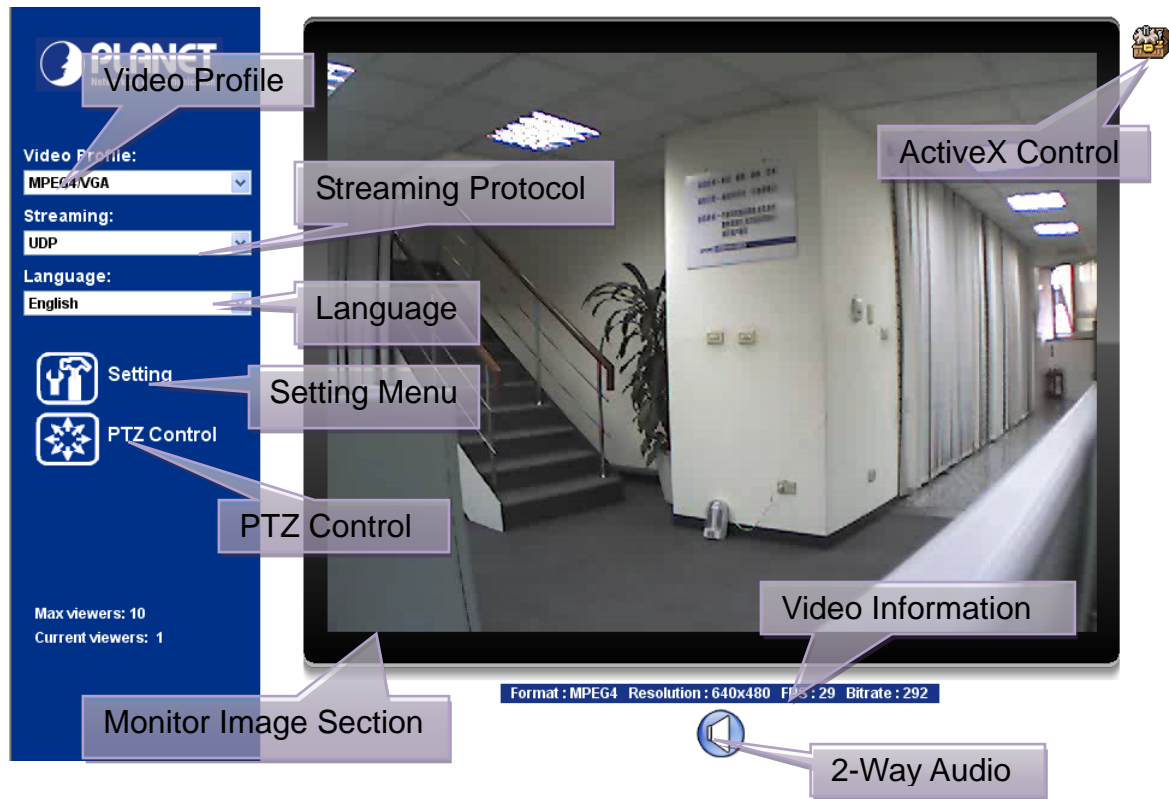


**NOTE:** If you log in the PT Internet Camera as an ordinary user, setting function will be not available. If you log in the PT Internet Camera as the administrator, you can perform all the settings provided within the device.



### 3.3 Live View

Start-up screen will be as follow no matter an ordinary users or an administrator.



**Monitor Image Section:** The image shot by the PT Internet Camera is shown here. The date and time are displayed at the top of the window.

**Video Profile:** The PT Internet Camera support multi-profile for both MPEG-4 and M-JPEG simultaneously. User can chose the proper and/or preferred profile here.

**2-Way Audio:** The PT Internet Camera supports 2-way audio function. User can chose to enable or disable this function by toggling the icon below



: Disable audio uploading function.



: Enable audio uploading function.

**ActiveX Control:** The plug-in ActiveX control supports a lot of functions by clicking the left mouse button. Note that this feature only supports on the ActiveX control within Microsoft® Internet Explorer.

**Setting Menu:** This function is detail setting for PT Internet Camera that only available for user logged into PT Internet Camera as administrator.

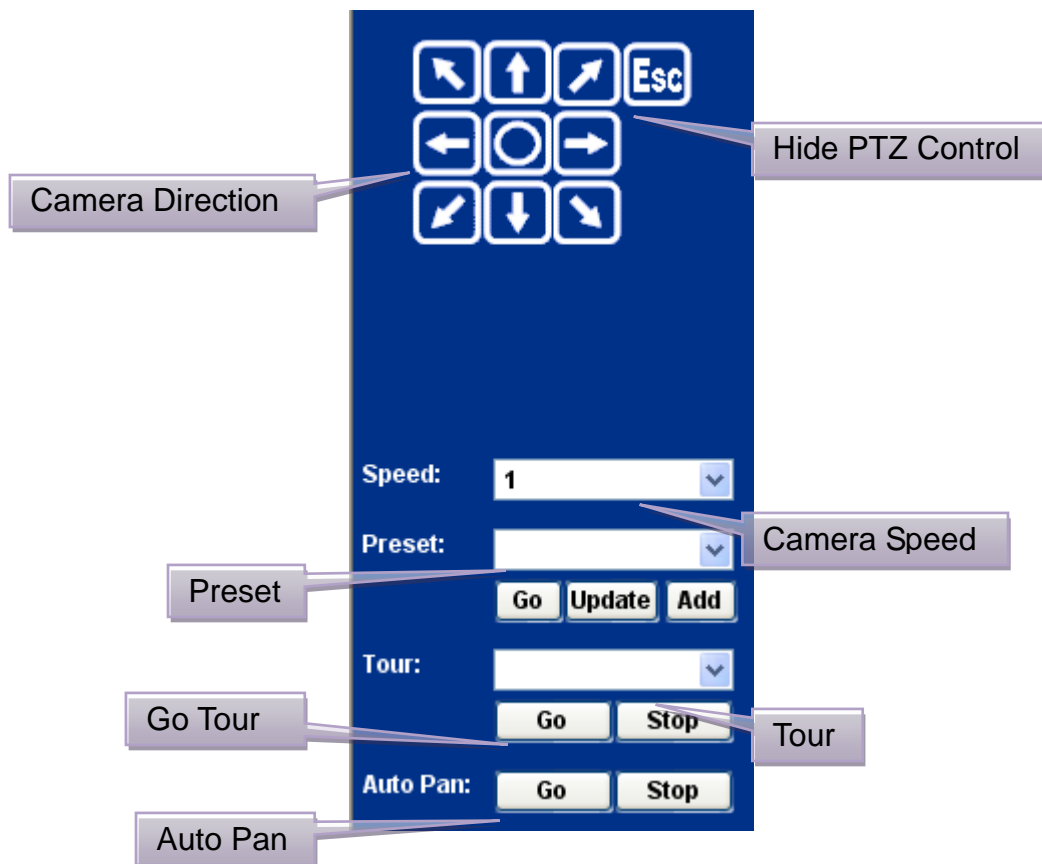
	Item	Action
	Network	Configure Network settings such as Wireless, DHCP, DDNS, 3GPP, PPPoE and UPnP
	Camera	Adjust camera parameters
	System	Configure system information, date & time, maintenance, and view system log file.
	Video	Configure bit rate and frame rate of video profiles
	Audio	Configure audio parameters
	User	Setup user name, password and login privilege
	E-Mail	Setup E-Mail configuration
	FTP	This device is a client site and configure information to upload images to server
	Object Detection	Setup Object detection
	Event Schedule	Configure the schedule while event triggered

**Streaming Protocol:** User can select proper streaming protocol according to networking environment.

**Language:** The device could provide multiple languages to meet customer's requirement.

**Video Information:** Display video information including video format, resolution, frame rate and bit rate.

**PTZ Control:** Click to display the following control panel:



**Hide PTZ Control:** Click the icon will hide the PTZ control function.

**Camera Direction:** Control camera up/down/left/right and home position.

**Camera Speed:** Choose the speed of Pan and Tilt.

**Preset:** Add/Update the preset positions or go to one of these positions.

**Tour:** Select one of the camera tours. Camera tour is comprised by series of preset locations.

**Go Tour:** Execute the selected camera tour.

**Auto Pan:** Execute the auto pan of camera. While auto pan is running, the camera will swing the camera automatically. Note that the speed of auto pan is fixed and cannot be adjustable.

### 3.4 ActiveX Control

The plug-in ActiveX control supports a lot of functions by clicking the left mouse button. Note that this feature only supports on the ActiveX control within Microsoft® Internet Explorer.

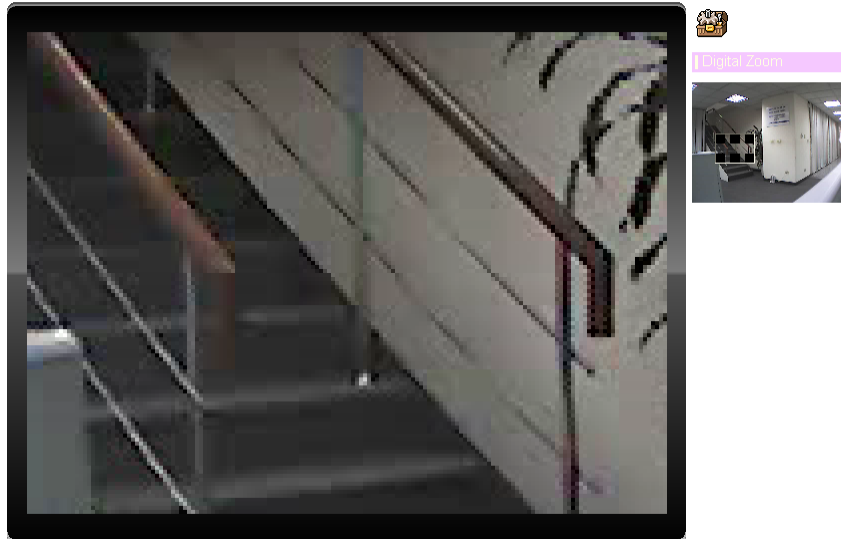
On the ActiveX control icon, click the LeftMouseButton, then a menu pop-up. This menu provides features that are unique to the ActiveX control. These features include:

- “Digital Zoom”,
- “Record”,
- “Snapshot”,
- “Voice”,
- “Statistics”,
- “About”



### 3.4.1 Digital Zoom

Click **Digital Zoom** to activate this function as above. User can drag or scale the box over the video to adjust zoom ratio and position.



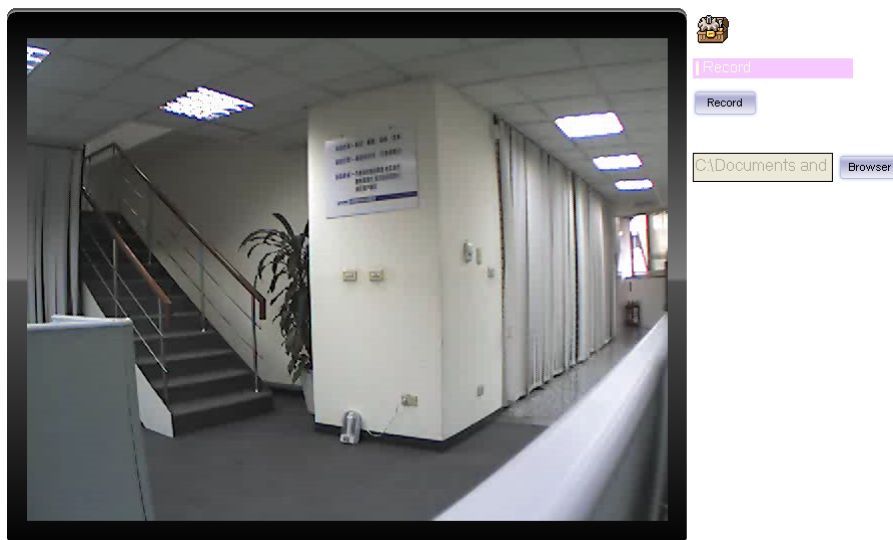
### 3.4.2 Record

Click **Record** to activate this function. Press **Record** button to start recording. The video file is saved as ASF format into your local PC. While you want to stop it, press **Stop** to stop recording. Select **Browser**, the pop-up window to select the save path and file name prefix, select **OK** to continue.

After stop recording, list the files, this file is named as Video\_yyyymmddhhmmss.asf

The ASF files can be display by the standard Windows Media Player, but it needs the DixectX 9.0 or later version to be installed.

**NOTE:** Default save path is "C:\Documents and Settings\All user\Desktop"



### 3.4.3 Snapshot

Click **Snapshot** to activate this function. Press **Snapshot** button to take a picture. The image file is saved as JPEG format into your local PC. Select **Browser**, the pop-up window to select the save path and file name prefix, select **OK** to continue.

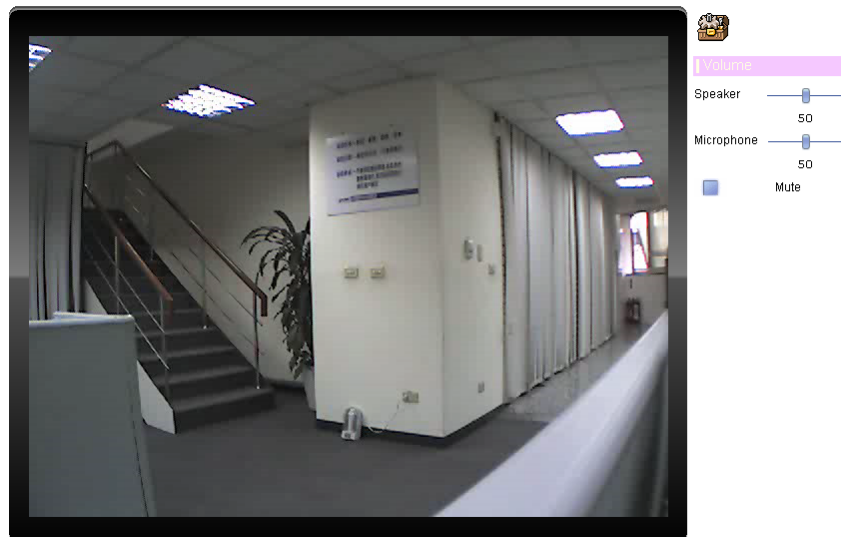
If you like to retrieve the saved image, select the file to display the saved image by using any one of graph editing tools.

**NOTE:** Default save path is "C:\Documents and Settings\All user\Desktop"



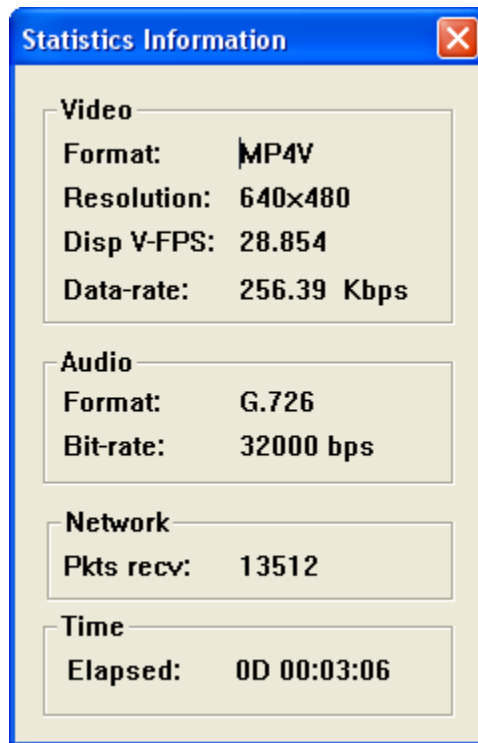
### 3.4.4 Voice

Click Volume to activate this function. These have two control bars for speaker and microphone volume. Scroll this control bar to adjust the audio attribute. Check the volume mute will mute the speaker output.



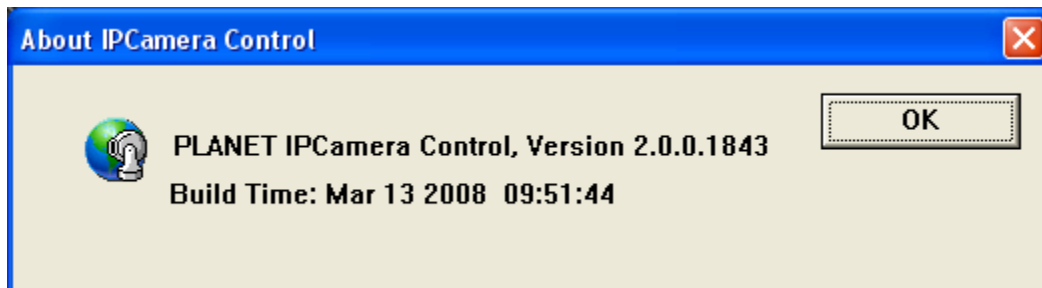
### 3.4.5 Statistics

Click **Statistics** to activate this function. A window will be popup to show the statistics information of the streaming status. **Note** that this information is the statistics between the device and your local PC.



### 3.4.6 About

Click **About** to show the ActiveX information



## 3.5 Network

Use this menu to configure the network to connect the device and the clients.

### 3.5.1 Network

This section provides the menu of connecting the device through Ethernet cable.

Network DDNS PPPoE Streaming UPNP IP Filter IP Notification

MAC Address 00:30:4F:A0:00:A3

☒ Obtain IP address automatically (DHCP)

IP Address 192.168.0.20 Test

Subnet Mask 255.255.255.0

Gateway 192.168.0.254

☒ Obtain DNS from DHCP

Primary DNS

Secondary DNS

HTTP Port 80 (1 ~ 65535)

**MAC address:** Display the Ethernet MAC address of the device. Note that user cannot change it.

**Obtain an IP address automatically (DHCP):** DHCP: Stands for Dynamic Host Configuration Protocol. Enable this checked box when a DHCP server is installed on the network to issue IP address assignment. With this setting, the IP address is assigned automatically. If this device cannot get an IP address within limited tries, the device will assign a default IP address, 192.168.0.20, by itself as the default IP address.

**IP address, Subnet mask, Gateway, 1st DNS, 2nd DNS server:** If you do not select Obtain an IP address automatically, then you need to enter these network parameters by yourself.

**IP Address:** This address is a unique numbers that identifies a computer or device on the WAN or LAN. These numbers are usually shown in groups separated by periods, for example: 192.168.0.200

**Subnet Mask:** Subnets allow network traffic between hosts to be separated based on the network's configuration. In IP networking, traffic takes the form of packets. IP subnets advance network security and performance to some level by organizing hosts into logical groups. Subnet masks contain four bytes and usually appear in the same "dotted decimal" data. For example, a very common subnet mask in its binary demonstration 11111111 11111111 11111111 00000000 will usually be



shown in the corresponding, more readable form as 255.255.255.0.

**Gateway:** A gateway is a piece of software or hardware that passes information between networks. You'll see this term most often when you either log in to an Internet site or when you're transient email between different servers.

**Primary DNS:** When you send email or position a browser to an Internet domain such as xxxxx.com, the domain name system translates the names into IP addresses. The term refers to two things: the conventions for naming hosts and the way the names are control across the Internet.

**Secondary DNS:** The same function as DNS1. It is option not necessary

**Note:** need to reboot the device to take this setting effect.

**HTTP Port:** The device supports two HTTP ports. The first one is default port 80 and this port is fixed. This port is very useful for Intranet usage. The second HTTP port is changeable. Users could assign the second port number of http protocol, and the WAN users should follow the port number to login. If the http port is not assigned as 80, users have to add the port number in back of IP address. For example: <http://192.168.0.20:80>.

If multiple devices are installed on the LAN and also required to be accessed from the WAN, then the **HTTP Port** can be assigned as the virtual server port mapping to support multiple devices.

When the configuration is finish, please click "OK" to save and enable the setting.

### 3.5.2 DDNS server

DDNS: Stands for Dynamic Domain Name Server

The device supports DDNS. If your device is connected to xDSL directly, you might need this feature. However, if your device is behind a NAT router, you will not need to enable this feature. Because DDNS allows the device to use an easier way to remember naming format rather than an IP address. The name of the domain is like the name of a person, and the IP address is like his phone number. On the Internet we have IP numbers for each host (computer, server, router, and so on), and we replace these IP numbers to easy remember names, which are organized into the domain name. As to xDSL environment, most of the users will use dynamic IP addresses. If users want to set up a web or a FTP server, then the Dynamic Domain Name Server is necessary. For more DDNS configuration, please consult your dealer.

Your Internet Service Provider (ISP) provides you at least one IP address which you use to connect to the Internet. The address you get may be static, meaning it never changes, or dynamic, meaning it's likely to change periodically. Just how often it changes, depends on your ISP. A dynamic IP address complicates remote access since you may not know what your current WAN IP address is when you want to access your network over the Internet. The solution to the dynamic IP address problem comes in the form of a dynamic DNS service.

The Internet uses DNS servers to lookup domain names and translates them into IP addresses. Domain names are just easy to remember aliases for IP addresses. A dynamic DNS service is

unique because it provides a means of updating your IP address so that your listing will remain current when your IP address changes. There are several excellent DDNS services available on the Internet and best of all they're free to use. One such service you can use is [www.DynDNS.org](http://www.DynDNS.org). You'll need to register with the service and set up the domain name of your choice to begin using it. Please refer to the home page of the service for detailed instructions or refer to Appendix D for more information.

Network **DDNS** PPPoE Streaming UPNP IP Filter IP Notification

DDNS ☐ Disable ☒ Enable

Server Name

DDNS Host  (1 ~ 30 Digits)

User Name  (< 21 Digits)

Password  (< 21 Digits)

**DDNS:** To enable or disable the DDNS service here.

**Server name:** Choose the built-in DDNS server.

**DDNS Host:** The domain name is applied of this device.

**User Name:** The user name is used to log into DDNS.

**Password:** The password is used to log into DDNS.

### 3.5.3 PPPoE

PPPoE: Stands for Point to Point Protocol over Ethernet

A standard builds on Ethernet and Point-to-Point network protocol. It allows ICA-M230 connect to Internet with xDSL or cable connection; it can dial up your ISP and get a dynamic IP address. For more PPPoE and Internet configuration, please consult your ISP.

It can directly connect to the xDSL, however, it should be setup on a LAN environment to program the PPPoE information first, and then connect to the xDSL modem. Power on again, then the device will dial on to the ISP connect to the WAN through the xDSL modem.

The procedures are

- Connect to a LAN by DHCP or Fixed IP
- Access the device, enter **Setting** → **Network** → **PPPoE** as below

Network	DDNS	PPPoE	Streaming	UPNP	IP Filter	IP Notification
<div> <div>PPPoE</div> <div> <input checked="" type="radio"/> Disable           <input type="radio"/> Enable         </div> <div> <div>User Name</div> <input type="text"/> <div>(&lt; 21 Digits)</div> </div> <div> <div>Password</div> <input type="password"/> <div>(&lt; 21 Digits)</div> </div> <div> <div>IP Address</div> <input type="text"/> </div> <div> <div>Subnet Mask</div> <input type="text"/> </div> <div> <div>Gateway</div> <input type="text"/> </div> <div> <div>Status</div> <div>Disconnect</div> </div> </div>						

**PPPoE:** To enable or disable the PPPoE service here.

**User Name:** Type the user name for the PPPoE service which is provided by ISP.

**Password:** Type the password for the PPPoE service which is provided by ISP.

**IP Address, Subnet Mask, and Gateway:** Shows the IP information got from PPPoE server site.

**Status:** Shows the Status of PPPoE connection.

### 3.5.4 Streaming

RTSP is a streaming control protocol, and a starting point for negotiating transports such as RTP, multicast and Unicast, and for negotiating codecs. RTSP can be considered a "remote control" for controlling the media stream delivered by a media server. RTSP servers typically use RTP as the protocol for the actual transport of audio/video data.

Network	DDNS	PPPoE	Streaming	UPNP	IP Filter	IP Notification
<div> <div>RTSP Port</div> <div> <input type="text" value="554"/> <span>(554 ~ 65535)</span> </div> </div> <div> <div>RTP Port</div> <div> <input type="text" value="50000"/> <span>~</span> <input type="text" value="50999"/> <span>(1024 ~ 65535)</span> </div> </div>						

**RTSP Port:** Choose the RTSP port. The RTSP protocol allows a connecting client to start a video stream. Enter the RTSP port number to use. The default value is 554.

**RTP Port:** Specify the range of transmission port number of video stream. The default range is 50000 to 50999. User can specify a number between 1024 and 65535.

To use the 3GPP function, in addition to previous section, you might need more information or configuration to make this function work.

**NOTE:**

1. The camera must be set as Multi-profile mode, not Mega-pixel mode. Otherwise this device cannot serve 3GPP stream.
2. To use the 3GPP function, it strongly recommends installing the Networked Device with a public and fixed IP address without any firewall protection.

**RTSP Port:** Port 554 is the default for RTSP service. However, sometimes, some service providers change this port number for some reasons. If so, user needs to change this port accordingly.

#### Dialing procedure:

1. Choose a verified player (PacketVideo or Realplayer currently)
2. Use the following URL to access: **rtsp://host/mpeg4/media.3gp**  
Where host is the host name or IP address of the camera.

**Compatible 3G mobile phone:** Please contact your dealer to get the approved list of compatible 3G phone.

### 3.5.5 UPnP

UPnP is short for Universal Plug and Play, which is a networking architecture that provides compatibility among networking equipment, software, and peripherals. This device is an UPnP enabled Network Camera. If your operating system is UPnP enabled, the device will automatically be detected and a new icon will be added to “My Network Places.” If you do not want to use the UPnP functionality, it can be disabled

In addition, this device also provides UPnP IGD function for NAT traversal easily. Use NAT traversal when your device is located on an intranet (LAN) and you wish to make it available from the other (WAN) side of a NAT router. With NAT traversal properly configured, all HTTP traffic to an external HTTP port in the NAT router will be forwarded to the device.

Network DDNS PPPoE Streaming **UPnP** IP Filter IP Notification

UPnP ☐ Disable ☒ Enable

Friendly Name ICA230 - 00304FA000A3

UPnP NAT Traversal ☒ Disable ☐ Enable

Port Range 32768 ~ 65535 (1 ~ 65535)

External IP Address (readonly)

**UPnP:** To enable or disable the UPnP service here.

**Friendly Name:** Shows the friendly name of this device here.

**UPnP NAT Traversal:** When enabled, the device will attempt to configure port mapping in a NAT router on your network, using UPnP™. Note that UPnP™ must be enabled in the NAT router first.

**Port Range:** The port range will open in NAT router.

**External IP address:** Show the IP address and port for WAN access through Internet. If NAT traversal is configured successfully, user can use this IP address and port to access this device.

### 3.5.6 IP Filter

You can enter different user's IP address which are allowing enter or denying by the device.

The screenshot shows the 'IP Filter' configuration page. At the top, there is a navigation bar with tabs: Network, DDNS, PPPoE, Streaming, UPNP, IP Filter (selected), and IP Notification. The main content area has a dark blue background. It contains two sections: 'IP Filter' and 'IP Filter Policy'. The 'IP Filter' section has two radio buttons: 'Disable' (selected) and 'Enable'. The 'IP Filter Policy' section has two radio buttons: 'Deny' (selected) and 'Allow'. Below these is a 'Save' button. The bottom section is titled 'Filter IP List' and contains a large empty box on the left, a 'Filter IP' input field on the right, and three buttons: 'Add', 'Delete', and 'DeleteAll'.

**IP Filter:** To enable or disable the IP filter function here.

**IP Filter Policy:** Choose the filter policy where is denying or allowing.

### 3.5.7 IP Notification

In case the IP address is changed, system is able to send out an email to alert someone if the function is enabled.

The screenshot shows a web interface with a top navigation bar containing tabs: Network, DDNS, PPPoE, Streaming, UPNP, IP Filter, and IP Notification (which is highlighted in blue). The main content area has a dark blue background. It features a section for 'SMTP Notification(email)' with two radio buttons: 'Disable' (selected) and 'Enable'. Below this are two text input fields. The 'Send To' field is empty, and the 'Subject' field contains the text 'IP notification'.

**SMTP Notification (e-mail):** If enable this function, then the “**Send to**“ and “**Subject**” field need to be filled.

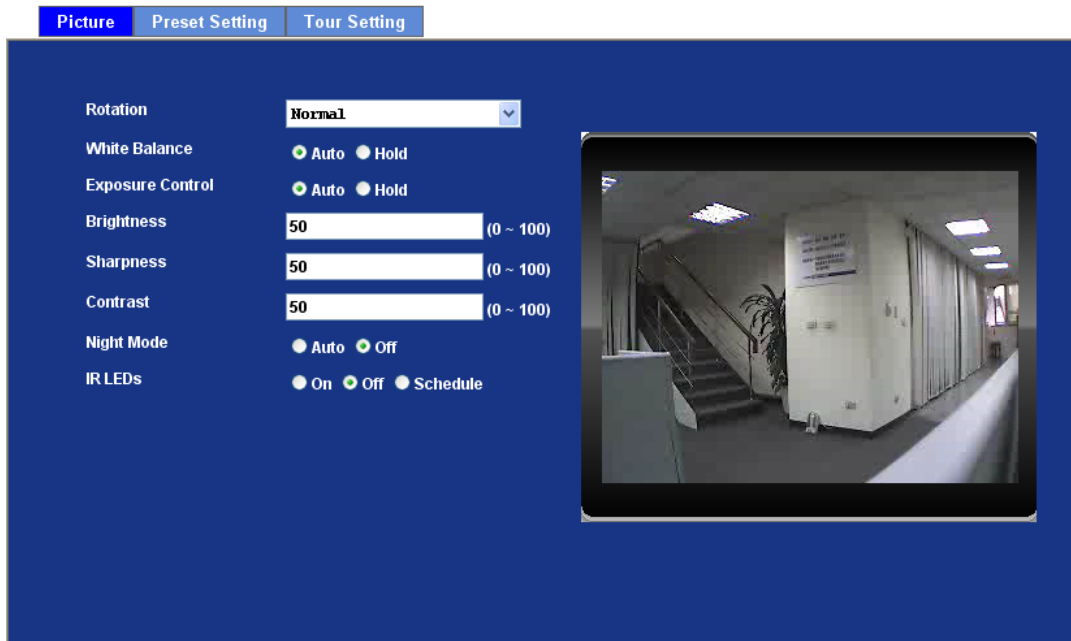
**Send To:** Type the receiver’s e-mail address. This address is used for reply mail.

**Subject:** Type the subject/title of the E-mail.

## 3.6 Camera

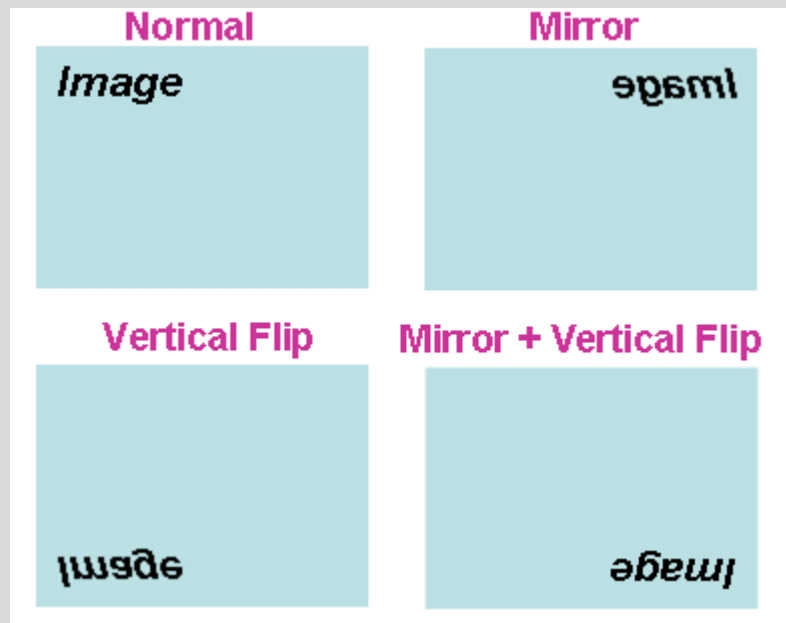
Use this menu to set the function of the camera of PT Internet Camera

### 3.6.1 Picture



#### Rotation:

Turn the “Mirror” and “Vertical Flip” On or OFF. The image will be overturned as below.



#### White Balance:

Auto: will adjust the white balance automatically.

Hold: will hold the white balance.



<b>Exposure Control:</b>	Auto: will adjust the internal gain automatically. Hold: will hold the internal gain.
<b>Brightness:</b>	Large value will brighten camera.
<b>Sharpness:</b>	Large value will sharpen camera.
<b>Contrast:</b>	Large value will contrast camera heavily.
<b>Night Mode:</b>	User can turn Auto or Off of the night mode. This function is very useful under low illumination environment.
<b>IR LEDs:</b>	User can turn On, Off or Schedule of the built-in IR LEDs. This function is very useful under low illumination environment even 0 Lux. Note that CMOS sensor will turn to black and white mode once IR LEDs turned on.

### 3.6.2 Preset Setting

This page provides the edit tool to modify or delete the “Preset Setting” item by item.

Picture
Preset Setting
Tour Setting

Preset Number	Preset Name

Preset List	
Preset Number	<input type="text"/>
Preset Name	<input type="text"/>
<input type="button" value="Modify"/> <input type="button" value="Delete"/>	

### 3.6.3 Tour Setting

Up to 64 positions can be preset, and the camera can be programming to move to the preset position sequentially.

Picture		Preset Setting		Tour Setting	
Tour Number	Tour Name	Running	Sequence	Preset Name	Wait Time
Tour Name		Running	Preset		
Running	<input checked="" type="radio"/> Enable <input checked="" type="radio"/> Disable	Wait Time	10	Seconds	
<input type="button" value="Add"/> <input type="button" value="Modify"/> <input type="button" value="Delete"/>			<input type="button" value="Add"/> <input type="button" value="Modify"/> <input type="button" value="Delete"/>		

**Tour Name:** The group name of the sequence of camera tour. The maximum number of camera tour is 16.

**Running:** Enable or disable this camera tour.

**Preset:** Set the sequence of the tour. Maximum 16 points can be assigned. The selected preset position is added in the Sequence list from 1 to 16.

**Wait Time:** Type a period of time during which the camera is to stay at each preset point, between 0 to 36000 seconds.

To use the camera tour function, user must preset some camera positions first. The maximum number of preset points is 64.

## 3.7 System

Use this menu to perform the principal settings of PT Internet Camera.

### 3.7.1 System

System   Date & Time   Maintenance

Device Title      (0 ~ 30 Digits)

Software Version   3.0.2.1845

Log  

```
Nov 8 20:14:59 AM322M syslog.info syslogd started: BusyBox v1.01 (2008.03.13-13:44)
Nov 8 20:15:00 AM322M user.notice kernel: klogd started: BusyBox v1.01 (2008.03.13-13:44)
Nov 8 20:15:00 AM322M user.emerg kernel: Linux version 2.4.19-pl1029 (richard@dhcpr)
Nov 8 20:15:00 AM322M user.emerg kernel: CPU: Faraday FA526id(wb) revision 1
Nov 8 20:15:00 AM322M user.emerg kernel: ICACHE:16KB enabled, DCACHE:16KB enabled,
Nov 8 20:15:00 AM322M user.emerg kernel: Machine: Prolific ARM9v4 - PL1029
Nov 8 20:15:00 AM322M user.emerg kernel: Prolific arm arch version 1.0.12
Nov 8 20:15:00 AM322M user.emerg kernel: On node 0 totalpages: 8192
Nov 8 20:15:00 AM322M user.emerg kernel: zone(0): 8192 pages.
Nov 8 20:15:00 AM322M user.emerg kernel: zone(1): 0 pages.
Nov 8 20:15:00 AM322M user.emerg kernel: zone(2): 0 pages.
Nov 8 20:15:00 AM322M user.emerg kernel: Kernel command line: root=/dev/norblock/di
Nov 8 20:15:00 AM322M user.debug kernel: Relocating machine vectors to 0xffff0000
```

**Device title:** You can enter the name of this unit here. It's very useful to identify the specific device from multiple units.

**Software version:** This information shows the software version in the device.

**Log:** User can check the system log information of the device, including the Main Info, Appended Info, Operator IP, and so on ...

### 3.7.2 Date & Time

You can setup the time setting of PT Internet Camera, make it synchronized with PC or remote NTP server. Also, you may select the correct time zone of your country.

**Server Date & Time:** Displays the date and time of the device

**PC Time:** Displays the date and time of the connected PC

<b>Adjust:</b>	<b>Manual setting:</b>	Click this option to set time and date manually
	<b>Synchronize with NTP:</b>	Click this option if you want to synchronize the device's date and time with those of time server called NTP server (Network Time Protocol)
	<b>Synchronize with PC:</b>	Click this option to enable time synchronization with PC time

**NTP server name:** Type the host name or IP address or domain name of the NTP server.

**NTP sync. Interval:** Select an interval between 1 and 23 hours at which you want to adjust the device's time referring to NTP server

**Time zone:** Set the time difference from Greenwich Mean Time in the area where the device is installed.

**Daylight saving:** Check this item to enable daylight saving adjustment.

**Daylight Saving Start Time:** Sets up the date and time of daylight saving start time.

**Daylight Saving Stop Time:** Sets up the date and time of daylight saving stop time.

**Daylight Saving Offset:** Sets up the date of daylight saving offset.

### 3.7.3 Maintenance

The screenshot shows the 'Maintenance' tab selected in the top navigation bar. The main content area is blue and contains the following options:

- Hard Factory Default (Include the network setting)**: A button labeled 'Hard Factory Default'.
- Factory Default (Except the network setting)**: A button labeled 'Factory Default'.
- Backup Setting**: A button labeled 'Backup Setting'.
- Restore Setting**: A text input field, a 'Browse...' button, a 'Restore Setting' button, and a 'Reset' button.
- Firmware Upgrade**: A text input field, a 'Browse...' button, a 'Firmware Upgrade' button, and a 'Reset' button.
- System Restart**: A button labeled 'Restart'.

**Hard Factory Default (Include the network setting):** Recall the device hard factory default settings. Note that click this button will reset all device's parameters to the factory settings (including the IP address).

**Factory Default (Except the network setting):** The unit is restarted and most current settings are reset to factory default values. This action will not reset the network setting.

**Backup Setting:** To take a backup of all of the parameters, click this button. If necessary, it will then be possible to return to the previous settings, if settings are changed and there is unexpected behavior.

**Restore Setting:** Click the "Browse" button to locate the saved backup file and then click the "Restore Setting" button. The settings will be restored to the previous configuration.

**Firmware upgrade:** The device supports new firmware upgrade.

1. Close all other application programs which are not necessary for firmware update.

2. Make sure that only you access this device at this moment
3. Disable Motion Detection function.
4. Select “**Firmware name**”
5. Select the Firmware binary file. (**Note** that it must make sure that the Firmware only applies to this device, once update, it will be burned into FLASH ROM of system.)
6. Once the firmware file was selected, select “Upgrade”.
7. The upgrade progress information will be displayed on the screen.
8. A message will be shown while the firmware upgraded. Once the upgrading process completed, the device will reboot the system automatically.
9. Please wait for 80 seconds, and then you can use IPWizard to search the device again.

**Warning!!!** The download firmware procedure cannot be interrupted. If the power and/or network connection are broken during the download procedure, it might possibly cause serious damage to the device.

Please be aware that you should not turn off the power during updating the firmware and wait for finish message.

Furthermore, do not try to upgrade new firmware if it's not necessary.

<b>System Restart:</b>	The device is restarted without changing any of the settings.
------------------------	---

## 3.8 Video

This device provides more video profiles as below to support different request to each client simultaneously. Each user can choose his preferred video profile as his request independently.

### 3.8.1 Common

Common MPEG4/VGA MPEG4/QVGA MPEG4/QQVGA VIDEO/JPEG MEGA MPEG4 MEGA JPEG

Text Overlay Setting

☐ Include Date

☐ Include Time

☐ Include Text  (0 ~ 20 Digits)

Video Profile

☒ VGA Multi-Profile ☐ Mega MPEG4/JPEG

**Text Overlay Setting:** There are some important information can be embedded into image, including date, time, and/or text.

**Video Profile:** User can only choose either Multi-profile or Mega-pixel mode. Multi-profile mode can serve MPEG4/VGA, MPEG4/QVGA, MPEG4/QQVGA and one JPEG streams simultaneously. On the other hand, Mega-pixel mode can serve MPEG4/Mega and JPEG/Mega dual streams simultaneously.

**NOTE:** Only ICA-M230 has Video Profile option.

### 3.8.2 MPEG4/VGA

Common MPEG4/VGA MPEG4/QVGA MPEG4/QQVGA VIDEO/JPEG MEGA MPEG4 MEGA JPEG

Video Type MPEG4

Resolution 640 x 480

Rate Control ☒ Quality 90 (1 ~ 100) ☐ Bitrate 2048 Kbps (384 ~ 4096)

Max Frame Rate 30

**Video Type:** It's MPEG4 mode in this profile

**Resolution:** It's VGA mode (640x480) in this profile

**Bit rate control:** Defines the rate control method of this profile. There are two options: Constant Bit Rate (CBR) or Variable Bit Rate (VBR). For CBR, the video bit rate is between 384kbps and 4096kbps. User can set the desired bit rate to match the limitation of bandwidth. For VBR, user should choose the quality level to set the video quality rather than bit rate. The quality level is between 1 and 100. The higher value is the better quality.

**Max Frame Rate:** Defines the targeted frame rate of this profile. For example, set the frame rate to 15 fps, then the image will be updated for 15 frames per second. User can set the desired max frame rate versus video quality under the limited bandwidth.



### 3.8.3 MPEG4/QVGA

Common	MPEG4/VGA	MPEG4/QVGA	MPEG4/QQVGA	VIDEO/JPEG	MEGA MPEG4	MEGA JPEG
Video Type	MPEG4					
Resolution	320 x 240					
Rate Control	<input checked="" type="radio"/> Quality <input type="text" value="80"/> (1 ~ 100) <input type="radio"/> Bitrate <input type="text" value="512"/> Kbps (128 ~ 1024)					
Max Frame Rate	<input type="text" value="30"/> ▼					

**Video Type:** It's MPEG4 mode in this profile.

**Resolution:** It's QVGA mode (320x240) in this profile.

**Bit rate control:** Defines the rate control method of this profile. There are two options: Constant Bit Rate (CBR) or Variable Bit Rate (VBR). For CBR, the video bit rate is between 128kbps and 1024kbps. User can set the desired bit rate to match the limitation of bandwidth. For VBR, user should choose the quality level to set the video quality rather than bit rate. The quality level is between 1 and 100. The higher value is the better quality.

**Max Frame Rate:** Defines the targeted frame rate of this profile. For example, set the frame rate to 15 fps, then the image will be updated for 15 frames per second. User can set the desired max frame rate versus video quality under the limited bandwidth

### 3.8.4 MPEG4/QQVGA

Common	MPEG4/VGA	MPEG4/QVGA	MPEG4/QQVGA	VIDEO/JPEG	MEGA MPEG4	MEGA JPEG
Video Type	MPEG4					
Resolution	160 x 120					
Rate Control	<input checked="" type="radio"/> Quality <input type="text" value="80"/> (1 ~ 100) <input type="radio"/> Bitrate <input type="text" value="128"/> K bps (24 ~ 320)					
Max Frame Rate	<input type="text" value="30"/>					

**Video Type:** It's MPEG4 mode in this profile.

**Resolution:** It's QQVGA mode (160x120) in this profile.

**Bit rate control:** Defines the rate control method of this profile. There are two options: Constant Bit Rate (CBR) or Variable Bit Rate (VBR). For CBR, the video bit rate is between 24kbps and 320kbps. User can set the desired bit rate to match the limitation of bandwidth. For VBR, user should choose the quality level to set the video quality rather than bit rate. The quality level is between 1 and 100. The higher value is the better quality.

**Max Frame Rate:** Defines the targeted frame rate of this profile. For example, set the frame rate to 15 fps, then the image will be updated for 15 frames per second. User can set the desired max frame rate versus video quality under the limited bandwidth.

### 3.8.5 VIDEO/JPEG

Common	MPEG4/VGA	MPEG4/QVGA	MPEG4/QQVGA	VIDEO/JPEG	MEGA MPEG4	MEGA JPEG
<p>Video Type: JPEG</p> <p>Resolution: 320x240</p> <p>Rate Control: Quality 90 (1 ~ 100)</p> <p>Max Frame Rate: 30</p>						

**Video Type:** It's JPEG mode in this profile.

**Resolution:** User can select VGA, QVGA, or QQVGA mode as the resolution of this JPEG profile.

**Rate Control:** The quality level is between 1 and 100. The higher value is the better quality.

**Max Frame rate:** Defines the targeted frame rate of this profile. For example, set the frame rate to 15 fps, then the image will be updated for 15 frames per second. User can set the desired max frame rate versus video quality under the limited bandwidth.

### 3.8.6 MEGA MPEG4 (ICA-M230 Only)

Common	MPEG4/VGA	MPEG4/QVGA	MPEG4/QQVGA	VIDEO/JPEG	MEGA MPEG4	MEGA JPEG
Video Type	MPEG4					
Resolution	1024x768					
Rate Control	<input checked="" type="radio"/> Quality 90 (1 ~ 100)					
	<input type="radio"/> Bitrate 2048 K bps (384 ~ 4096)					
Max Frame Rate	15					

**Video Type:** It's a MPEG4 mode in this profile.

**Resolution:** It's Mega mode (1024x768) in this profile.

**Rate Control:** Defines the rate control method of this profile. There are two options: Constant Bit Rate (CBR) or Variable Bit Rate (VBR). For CBR, the video bit rate is between 384kbps and 4096kbps. User can set the desired bit rate to match the limitation of bandwidth. For VBR, user should choose the quality level to set the video quality rather than bit rate. The quality level is between 1 and 100. The higher value is the better quality.

**Max Frame Rate:** Defines the targeted frame rate of this profile. For example, set the frame rate to 15 fps, then the image will be updated for 15 frames per second as possible. User need to set reasonable max frame rate versus video quality under the limited bandwidth.

### 3.8.7 MEGA JPEG (ICA-M230 Only)

Common	MPEG4/VGA	MPEG4/QVGA	MPEG4/QQVGA	VIDEO/JPEG	MEGA MPEG4	MEGA JPEG
--------	-----------	------------	-------------	------------	------------	-----------

Video Type: JPEG

Resolution: 1280x1024

Rate Control: Quality  (1 ~ 100)

Max Frame Rate:

**Video type:** It's JPEG mode in this profile.

**Resolution:** It's Mega mode (1280x1024) in this profile.

**Rate Control:** The quality level is between 1 and 100. The higher value is the better quality.

**Max Frame Rate:** Defines the targeted frame rate of this profile. For example, set the frame rate to 5 fps, then the image will be updated for 5 frames per second as possible. User need to set reasonable max frame rate versus video quality under the limited bandwidth.

## 3.9 Audio

**Setting**

Audio ☐ Disable ☒ Enable

Audio Mode ☐ Simplex ☒ Full duplex

Input Gain  ▼

Output Gain  ▼

**Audio:** To enable or disable audio function

**Audio Mode:** To select Simplex or Full duplex (2-way audio) mode

**Input Gain:** To adjust gain of input audio

**Output Gain:** To adjust gain of output audio

## 3.10 User

Use this menu to set the user names and password of the Administrator and up to 10 users, and access right of each user.

**Setting**

Viewer Login ☒ Anonymous ☐ Only users in database **Save**

User Name	Access Right
admin	administrator

User List	
User Name	<input type="text"/> (1 ~ 20 Digits)
Password	<input type="text"/> (0 ~ 12 Digits)
Verify Password	<input type="text"/> (0 ~ 12 Digits)
Access Right	<input type="radio"/> Administrator <input checked="" type="radio"/> Viewer
<b>Add</b> <b>Modify</b> <b>Delete</b>	

**Viewer login:** **Anonymous:** Choose this to enable anonymous user login.

**Only users in database:** Choose this to disable anonymous user login.

**User name:** Enter the user's new account here which you want.

**Password:** Enter the user's new password here.

**Verify Password:** Please enter the user's new password here again to confirm.

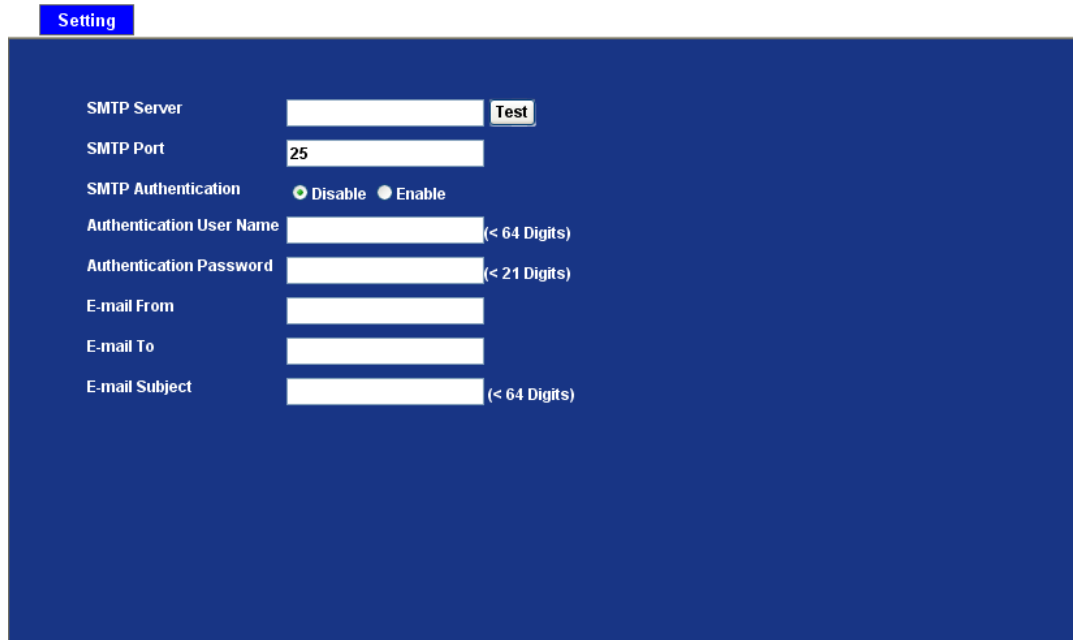
**Enable:** Select if you want to enable user account.

**Access Right:** Administrator can access every function in this device. However, Viewers only can view the video and access limited function.

**Add, Update, and Remove:** Manage the user's account of viewer user.

## 3.11 E-Mail

You may setup SMTP mail parameters for further operation of Event Schedule. That's, if users want to send the alarm message out, it will need to configure parameters here and also add at least one event schedule to enable event triggering.



<b>SMTP Server:</b>	Type the SMTP server name or the IP address of the SMTP server.
---------------------	---

<b>Test:</b>	Send a test mail to mail server to check this account is available or not.
--------------	--

<b>SMTP Port:</b>	Set port number of SMTP service.
-------------------	----------------------------------

<b>SMTP Authentication:</b>	Select the authentication required when you send an e-mail.
-----------------------------	---

<b>Disable:</b>	If no authentication is required when an e-mail is sent.
-----------------	--

<b>Enable:</b>	If authentication is required when an e-mail is sent.
----------------	---

<b>Authentication User Name:</b>	Type the user name for the SMTP server if Authentication is Enable.
----------------------------------	---

<b>Authentication Password:</b>	Type the password for the SMTP server if Authentication is Enable.
---------------------------------	--

<b>E-mail To:</b>	Type the receiver's e-mail address.
-------------------	-------------------------------------

<b>E-mail From:</b>	Type the sender's E-mail address. This address is used for reply e-mails.
---------------------	---

<b>E-mail Subject:</b>	Type the subject/title of the e-mail.
------------------------	---------------------------------------



## 3.12 FTP

You may setup FTP parameters for further operation of Event Schedule. That's, if users want to send the alarm message to an FTP server, it will need to configure parameters here and also add at least one event schedule to enable event triggering as SMTP.

**Setting**

Name	FTP Server	FTP Port	FTP Path
Name	<input type="text"/> (<21 Digits)		
FTP Server	<input type="text"/> <b>Test</b>		
FTP Login Name	<input type="text"/> (<21 Digits)		
FTP Login Password	<input type="text"/> (<21 Digits)		
FTP Port	<input type="text" value="21"/> (1 ~ 65535)		
FTP Path	<input type="text"/> (<64 Digits)		
FTP Passive Mode	<input checked="" type="radio"/> Disable <input type="radio"/> Enable		

**Name:** User can specify multiple FTP paths as wish. Therefore, user needs to specify a name for each FTP setting.

**FTP Server:** Type the server name or the IP address of the FTP server.

**Test:** Check the FTP server whether this account is available or not.

**FTP Login name:** Type the user name for the FTP server.

**FTP Login Password:** Type the password for the FTP server.

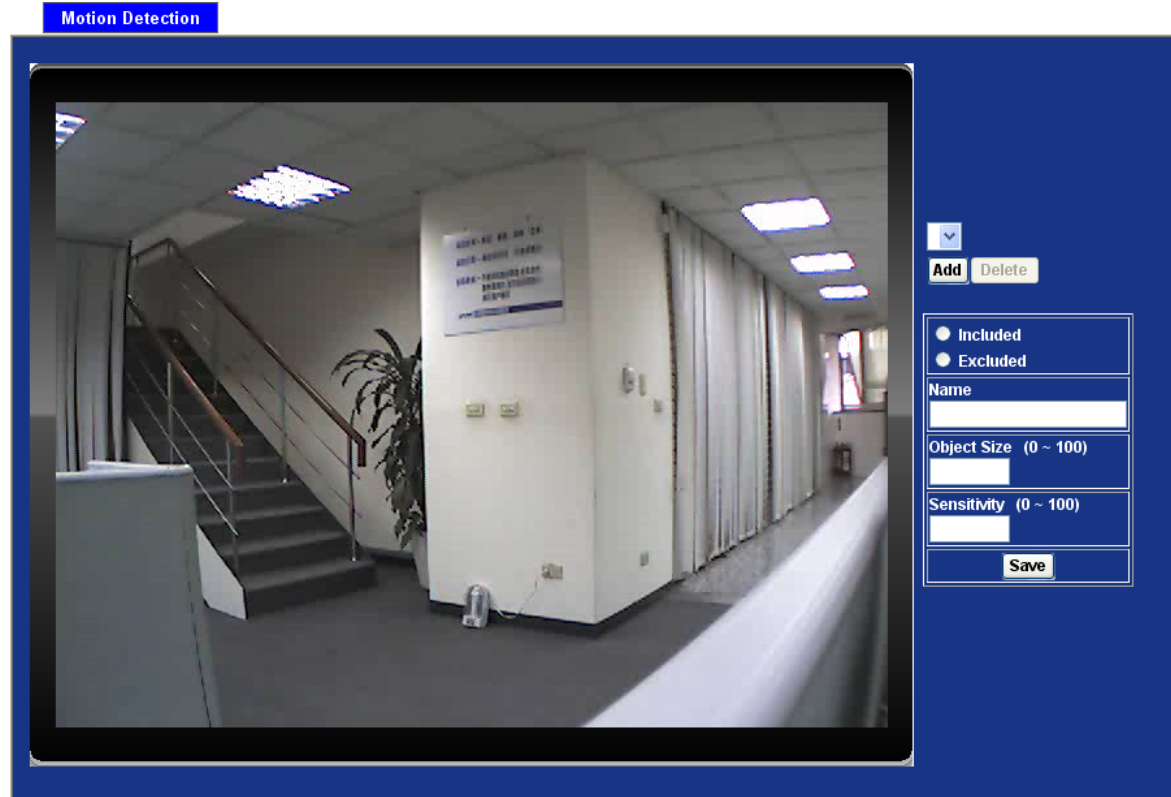
**FTP Port:** Set port number of FTP service.

**FTP Path:** Set working directory path of FTP server.

**FTP Passive Mode:** Select passive or active mode connecting to FTP server.

### 3.13 Object Detection

Use this menu to specify motion detection window 1 to window 4 and set the conditions for detection while observing a captured image.



#### Add and Del:

To add or delete the motion windows. User can specify up to 4 Included and/or Excluded windows to monitor the video captured by this device. By dragging mouse on the image, you can change the position and size of the selected motion window accordingly.

#### Included or Excluded Window:

These windows can be specified as Included or Excluded type.

**Included:** Windows target specific areas within the whole video image

**Excluded:** Windows define areas within an Include window that should be ignored (areas outside Include windows are automatically ignored)

#### Name:

Name of the specified motion window.

**Object Size:**

Defines the object size of motion detection. The higher object size will only larger objects trigger motion detection. The lower object size will even small objects trigger motion detection too. Generally speaking, the smaller size will be easier to trigger event.

**Sensitivity**

Defines the sensitivity value of motion detection. The higher value will be more sensitivity.

## 3.14 Event Schedule

### 3.14.1 Setting

This menu is used to specify the schedule of Events and activate the some actions provided by this device.

**Setting**

Name	Enable	Type	Weekday	Start	Duration	Trigger by	Action
Name	<input type="text"/>						
Enable	<input checked="" type="radio"/> Yes <input type="radio"/> No						
Type	<input checked="" type="radio"/> Event Trigger <input type="radio"/> Schedule Trigger						
Enable Time	<input type="checkbox"/> Sun <input type="checkbox"/> Mon <input type="checkbox"/> Tue <input type="checkbox"/> Wed <input type="checkbox"/> Thu <input type="checkbox"/> Fri <input type="checkbox"/> Sat Start from <input type="text"/> : <input type="text"/> , Duration <input type="text"/> : <input type="text"/> ( max 168:00 hours )						
Trigger by	<input type="checkbox"/> Motion Area <input type="text"/>						
Action	<input type="checkbox"/> Go <input checked="" type="radio"/> Preset <input type="radio"/> Tour <input type="text"/> <input type="checkbox"/> Voice Alert, Duration <input type="text"/> ( Seconds ) <input type="checkbox"/> Send FTP <input type="text"/> <input type="checkbox"/> Send E-Mail <input type="checkbox"/> Open IR Light						

**Name:** Name of the Event or Schedule.

**Enable:** Enable or disable this Event or Schedule.

**Type:** Schedule start with Event trigger or Schedule trigger.

**Enable Time:** Define the feasible time slot.

**Trigger by:** Select the triggered sources with event trigger.

**Action:** Define the actions once event triggered.

**Example1.** If you want to IR LED auto start in 18:00 every day and IR LED shines for 12 hours continuously. You will need to configure some parameters as below:

Name	LED auto start
Enable	<input checked="" type="radio"/> Yes <input type="radio"/> No
Type	<input type="radio"/> Event Trigger <input checked="" type="radio"/> Schedule Trigger
Enable Time	<input checked="" type="checkbox"/> Sun <input checked="" type="checkbox"/> Mon <input checked="" type="checkbox"/> Tue <input checked="" type="checkbox"/> Wed <input checked="" type="checkbox"/> Thu <input checked="" type="checkbox"/> Fri <input checked="" type="checkbox"/> Sat Start from 18 : 0 , Duration 12 : 0 ( max 168:00 hours )
Trigger by	<input type="checkbox"/> Motion Area
Action	<input type="checkbox"/> Go <input checked="" type="radio"/> Preset <input type="radio"/> Tour <input type="checkbox"/> Voice Alert, Duration ( Seconds ) <input type="checkbox"/> Send FTP <input type="checkbox"/> Send E-Mail <input checked="" type="checkbox"/> Open IR Light

**Example2.** If you want to upload image from PT Internet Camera to FTP server periodically. You will need to configure some parameters as below:

Name	FTP Upload
Enable	<input checked="" type="radio"/> Yes <input type="radio"/> No
Type	<input type="radio"/> Event Trigger <input checked="" type="radio"/> Schedule Trigger
Enable Time	<input checked="" type="checkbox"/> Sun <input checked="" type="checkbox"/> Mon <input checked="" type="checkbox"/> Tue <input checked="" type="checkbox"/> Wed <input checked="" type="checkbox"/> Thu <input checked="" type="checkbox"/> Fri <input checked="" type="checkbox"/> Sat Start from 0 : 0 , Duration 24 : 0 ( max 168:00 hours )
Trigger by	<input type="checkbox"/> Motion Area
Action	<input type="checkbox"/> Go <input checked="" type="radio"/> Preset <input type="radio"/> Tour <input type="checkbox"/> Voice Alert, Duration ( Seconds ) <input checked="" type="checkbox"/> Send FTP FTP Server <input type="checkbox"/> Send E-Mail <input type="checkbox"/> Open IR Light

**NOTE:** PT Internet Camera will send a 15sec recording file to FTP server every min.

### 3.14.2 Record

You can select which file type you would like to record and set a prefix file name.

Setting

Record

Record File Type

☒ AVI ☐ JPEG

Record File Prefix

(0 ~ 20 Digits)

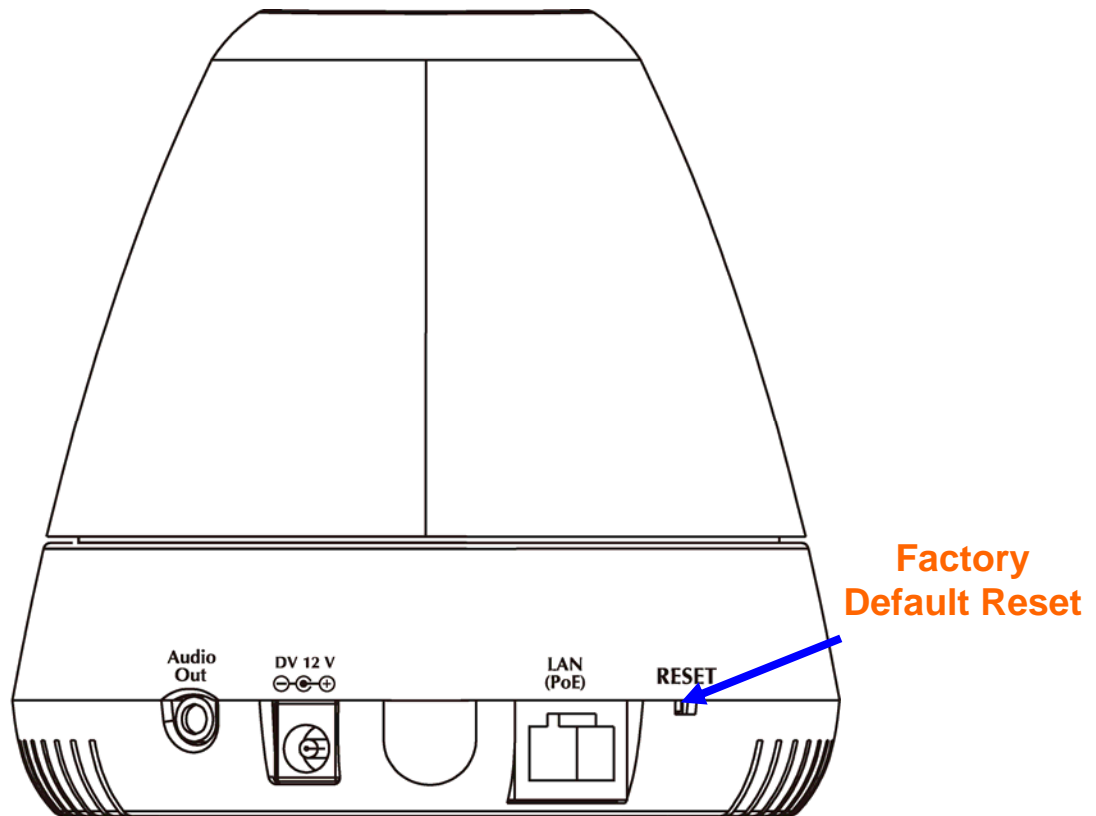
<b>Name</b>	Name of the Event or Schedule.
<b>Record File Type</b>	You can select AVI or JPEG format for event recording.
<b>Record File Prefix</b>	You can set a prefix file name for the recording file. The max you can enter 20 digitals.

# Appendix A: Reset Factory Default Settings

There is a button hidden in the pinhole near to the RJ-45 connector. This button is used to restore the all factory default settings. Sometimes restarting the device will make the system back to a normal state. However, if the system still got problems after restart, user can restore the factory default settings and install it again.

## Restore the device:

1. Insert the paper clip or other suitable tool to press and hold the button down continuously.
2. Hold it least 3 seconds and release the tool. Then the device has been restored to default settings and reboot again.



**NOTE:** Restoring the factory default setting will lose the all previous settings included IP address forever. User needs to run the IPWizard program to search the device and configure it to let the device work properly again.

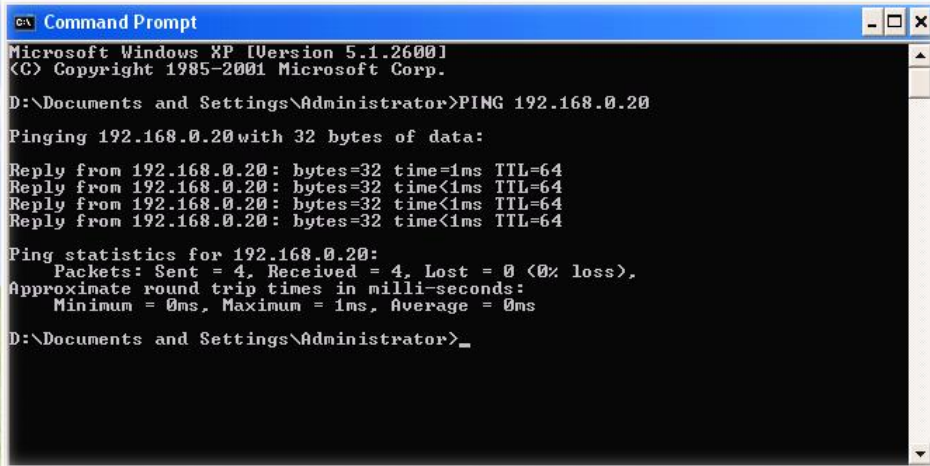
## Appendix B: PING IP Address

The PING (stands for Packet Internet Groper) command is used to detect whether a specific IP address is accessible by sending a packet to the specific address and waiting for a reply. It's also a very useful tool to confirm PT Internet Camera installed or if the IP address conflicts with any other devices over the network.

If you want to make sure the IP address of PT Internet Camera, utilize the PING command as follows:

- Start a DOS window.
- Type ping x.x.x.x, where x.x.x.x is the IP address of the PT Internet Camera.

The replies, as illustrated below, will provide an explanation to the problem.



```
C:\> Command Prompt
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

D:\Documents and Settings\Administrator>PING 192.168.0.20

Pinging 192.168.0.20 with 32 bytes of data:

Reply from 192.168.0.20: bytes=32 time=1ms TTL=64
Reply from 192.168.0.20: bytes=32 time<1ms TTL=64
Reply from 192.168.0.20: bytes=32 time<1ms TTL=64
Reply from 192.168.0.20: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.0.20:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

D:\Documents and Settings\Administrator>_
```

If you want to detect any other devices conflicts with the IP address of PT Internet Camera, also can utilize the PING command but you must disconnect the PT Internet Camera from the network first.



# Appendix C: Bandwidth and Video Size Estimation

The frame rate of video transmitted from the PT Internet Camera depends on connection bandwidth between client and server, video resolution, codec type, and quality setting of server. Here is a guideline to help you roughly estimate the bandwidth requirements for your PT Internet Camera.

The required bandwidth depends on content of video source. The slow motion video will produce smaller bit rate generally and fast motion will produce higher bit rate vice versa. Actual results generated by the PT Internet Camera may be varying.

Image Resolution	Average range of Data Sizes for JPEG mode	Average bit rate for MPEG4 mode
160 x 120 (QQVGA)	3 ~ 6k byte per frame	64kbps~384kbps @ 30fps
320 x 240 (QVGA)	8 ~ 20k byte per frame	128kbps~768kbps @ 30fps
640 x 480 (VGA)	20 ~ 50K byte per frame	256kbps~4096kbps @ 30fps

**Note:** Audio streaming also takes bandwidth around 5 kbps to 64kbps. Most xDSL/Cable modem upload speeds may not even reach up to 128 kbps. Thus, you may not be able to receive any video while streaming audio on a 128 kbps or lower connection. Even though the upload speed is more than 128kbps, for optimal video performance, disabling audio streaming will get better video performance.

## MJPEG

Resolution	Quality setting	fps setting	Current stream	Current fps
320*240 CIF	Best	5 fps	around 2300Kbps	5 fps
320*240 CIF	Best	15 fps	around 6700Kbps	14.7fps
320*240 CIF	Best	25 fps	around 14300Kbps	28 fps
320*240 CIF	Normal	5 fps	around 400Kbps	4.2 fps
320*240 CIF	Normal	15 fps	around 1200Kbps	13 fps - 14 fps
320*240 CIF	Normal	25 fps	around 1700Kbps	30fps
320*240 CIF	Lowest	5 fps	around 350Kbps	4.2 fps
320*240 CIF	Lowest	15 fps	around 1100Kbps	13 - 14fps
320*240 CIF	Lowest	25 fps	around 2000Kbps	25 fps

## MPEG4

Resolution	Stream setting	fps setting	Current stream	Current fps
640*480 VGA	384Kbps	5 fps	373Kbps - 388Kbps	5 fps
640*480 VGA	1024Kbps	5 fps	1024Kbps - 1036Kbps	5 fps
640*480 VGA	2048Kbps	5 fps	around 1800Kbps	5 fps
640*480 VGA	384Kbps	20 fps	around 550Kbps	22 fps
640*480 VGA	1024Kbps	20 fps	around 1400Kbps	20 fps
640*480 VGA	2048Kbps	20 fps	around 2600Kbps	16 - 17fps
320*240 CIF	200Kbps	5 fps	183Kbps - 200Kbps	5 fps
320*240 CIF	1024Kbps	5 fps	760Kbps - 800Kbps	5 fps
320*240 CIF	2048Kbps	5 fps	around 850Kbps	5 fps
320*240 CIF	200Kbps	25 fps	around 240Kbps	28 fps
320*240 CIF	1024Kbps	25 fps	around 1100Kbps	30 fps
320*240 CIF	2048Kbps	25 fps	around 1600Kbps	30 fps
160*120 QCIF	128Kbps	5 fps	117Kbps - 121Kbps	5 fps
160*120 QCIF	1024Kbps	5 fps	around 176Kbps	5 fps
160*120 QCIF	2048Kbps	5 fps	around 220Kbps	5 fps
160*120 QCIF	128Kbps	25 fps	around 155Kbps	30 fps
160*120 QCIF	1024Kbps	25 fps	around 520Kbps	30 fps
160*120 QCIF	2048Kbps	25 fps	around 1000Kbps	30 fps

# Appendix D: DDNS Application

## 1. Preface

If you have a Cable modem or xDSL, this is a great way to host your own Networked Device or other TCP/IP Service. Get your own domain like [www.yourname.com](http://www.yourname.com), [www.yourname.com.tw](http://www.yourname.com.tw) etc. (Note: This domain must be registered with Internic via registration authorities such as Network Solutions, DirectNIC, Register.com etc). Your domain name's dynamic IP address is automatically tracked by a DDNS server.

Host your own Networked Device and much more no matter what your computer's IP address may be and even if you have dialup, DSL or cable modem internet connection where your computer's IP address changes all the time!! DDNS service supports all top level domain names including but not limited to .com, .net, .org, .to, .uk etc.

## 2. Ethernet Network Environment

Normally, DDNS service is only necessary for the users that could only obtain dynamic IP addresses. As to the users that could obtain the static valid IP address, they do not usually have to apply the DDNS service. Before we decide if DDNS is necessary for the users, we have to check what kind of Ethernet network environment we have to install our Networked Device on.

### (1) Environment of Fixed Valid IP Network

If users could obtain valid IP addresses, they could save the effort to apply DDNS service. Because the IP address in this environment is fixed, users could input the IP address or domain name of demo site directly in the IE browser.

### (2) Environment of Dynamic IP Network

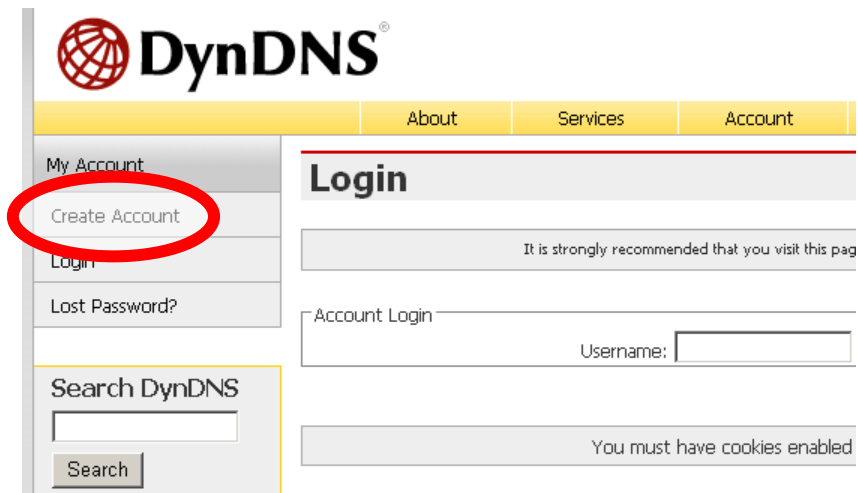
If users is under an environment of dynamic IP network (Dial-up xDSL), they have to apply a domain name in advance. Then apply DDNS service. Finally setup the necessary information of DDNS and PPPoE of the Networked Device in order to let the outside administrator be able to access through internet.

## 3. Application Steps – DDNS & Domain Name

- (1). Visit the following web site: <http://www.dyndns.org/>
- (2). Click “Account”




(3). After the columns show up at the left side, click “[Create Account](#)”.



(4). Fill the application agreement and necessary information.

- a. Username
- b. E-mail address and confirmation
- c. Password and confirmation
- d. Submit all the input information and finish creating an account

**DynDNS**<sup>®</sup>

User:  Pass:

[Lost Password?](#) - [Create Account](#)

AboutServicesAccountSupportNews

My Account

Create Account

Login

Lost Password?

Search DynDNS

Search

## Create Your DynDNS Account

Please complete the form to create your free DynDNS Account.

It is strongly recommended that you visit this page [securely](#). You are not currently visiting this page securely.

User Information

Username:

E-mail Address:

Confirm E-mail Address:

Password:

Confirm Password:

Instructions to activate your account will be sent to the e-mail address provided.

Your password needs to be more than 5 characters and cannot be the same as your username. Please choose a password that is a common word, or can otherwise be easily guessed.

### Terms of Service

Please read the acceptable use policy (AUP) and accept it prior to creating your account. Also acknowledge that you may only have one (1) free account, and that creation of multiple free accounts will result in the deletion of all of your accounts.

Policy Last Modified: February 6, 2006

1. ACKNOWLEDGMENT AND ACCEPTANCE OF TERMS OF SERVICE

All services provided by Dynamic Network Services, Inc. ("DynDNS") are provided to you (the "Member") under the Terms and Conditions set forth in this Acceptable Use Policy ("AUP") and any other operating rules and policies set forth by DynDNS. The AUP comprises the entire agreement between the Member and DynDNS and supersedes all prior agreements between the parties regarding the subject matter contained herein. BY COMPLETING THE REGISTRATION PROCESS AND CLICKING THE "Accept" BUTTON, YOU ARE INDICATING YOUR AGREEMENT TO BE BOUND BY ALL OF THE TERMS AND CONDITIONS OF THE AUP.

2. DESCRIPTION OF SERVICE

I agree to the AUP: ☐

I will only create one (1) free account: ☐

Click these two options

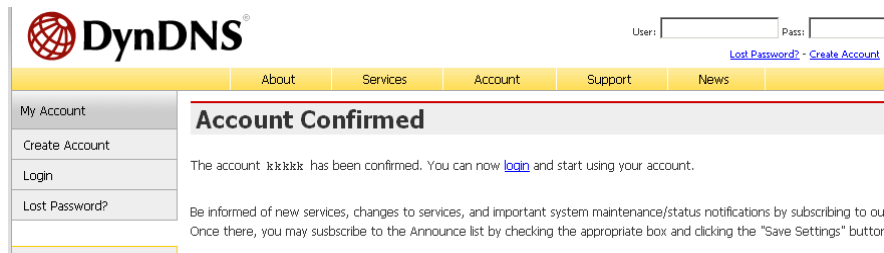
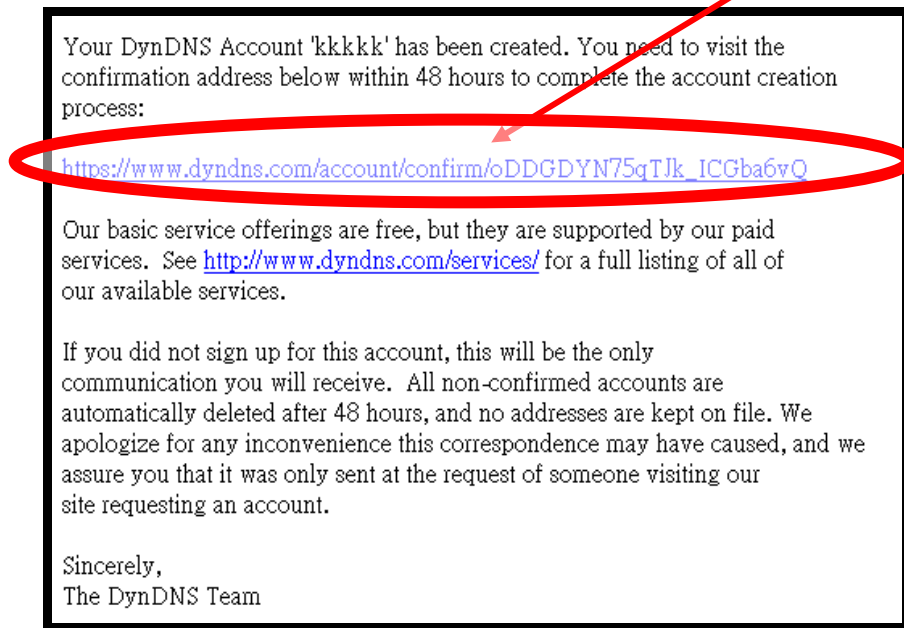
### Next Step

After you click "Create Account", we will create your account and send you an e-mail to the address you provided. Please follow the instructions in that e-mail to confirm your account. You will need to confirm your account within 48 hours or we will automatically delete your account. (This helps prevent unwanted robots on our systems)

Create Account

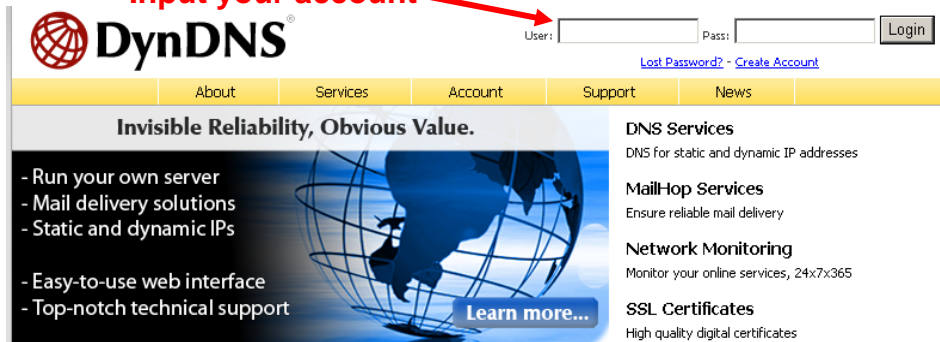
- (5). Check your e-mail mailbox. There will be an e-mail with a title "Your DynDNS Account Information". Click the hyperlink address to confirm the DDNS service that you just applied. Then DDNS you applied activated.

**Click to confirm**



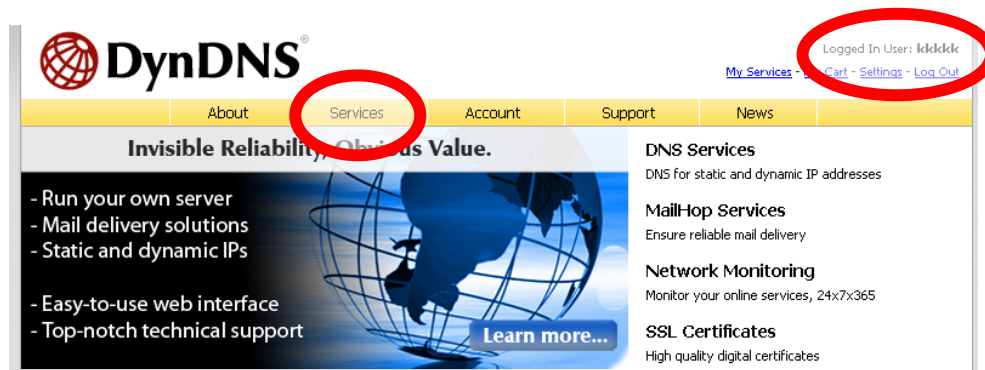
- (6). Enter the web page <http://www.dyndns.org/> again. Input your username and password that you just applied to login administration interface of DDNS server.

**Input your account**

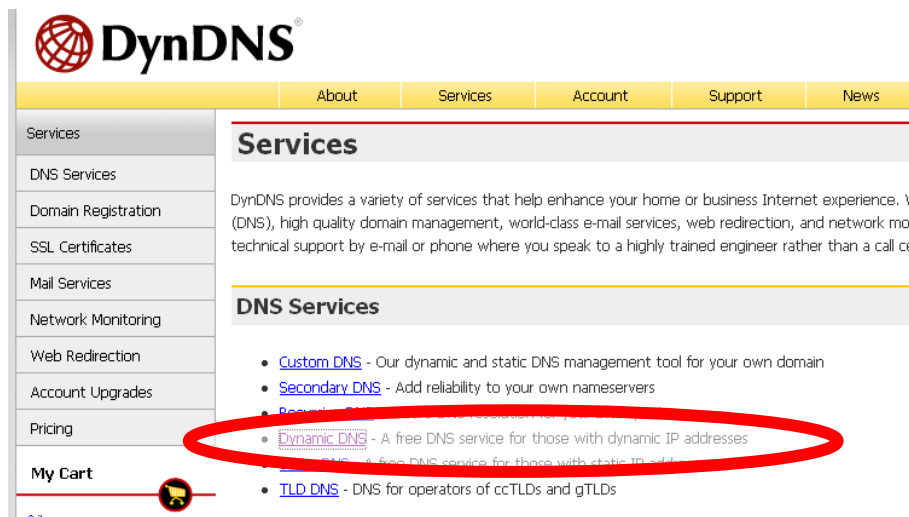


- (7). If the correct username and password are input, you can see the following picture at the top-right of the login page.

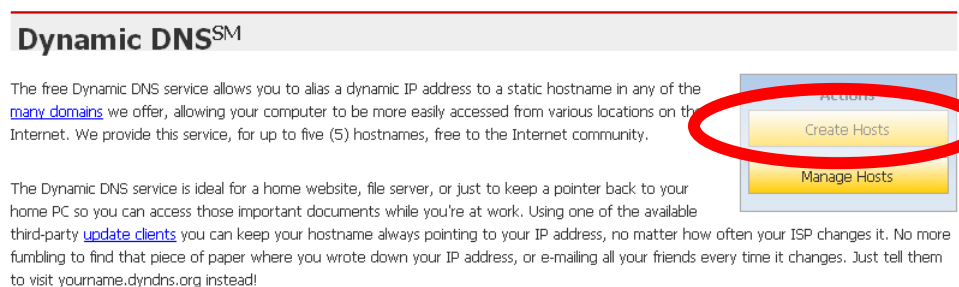
(8). Click the “Services”.



(9). Click the “Dynamic DNS”.



(10). Click the “Create Hosts”.



(11). We could create a domain name without any charge at this step. First, we input the host name. (No.1) Then we pick a domain that is easy to remember. Finally (No.2), click the “Add Host” to submit the domain name information. (No.3)

The screenshot shows a web form titled "New Dynamic DNS<sup>SM</sup> Host". The form contains four input fields: "Hostname:", "IP Address:", "Enable Wildcard:" (with a checkbox), and "Mail Exchanger (optional):". To the right of these fields is a dropdown menu showing a list of domain options. Red annotations indicate the steps: a red "1" with an arrow pointing to the "Hostname:" field; a red "2" with an arrow pointing to the domain list; and a red "3" with an arrow pointing to the "Add Host" button. The "Add Host" button is located to the right of the domain list, and a "Reset Form" button is located to its right.

New Dynamic DNS <sup>SM</sup> Host	
Hostname:	<input type="text"/>
IP Address:	<input type="text"/>
Enable Wildcard:	<input type="checkbox"/>
Mail Exchanger (optional):	<input type="text"/>

dyn dns.org

dyn-o-saur.com

dynalias.com

dynalias.net

dynalias.org

dyndns.biz

dyndns.info

dyndns.org

dyndns.tv

dyndns.ws

ftpaccess.cc

game-host.org

3

↓

Add Host

Reset Form

#### 4. Setup the DDNS and PPPoE of Network Device

At last, users have to enter the web page of Networked Device and setup the necessary information of DDNS and PPPoE after the application of DDNS service. Please check the user manual to access the DDNS and PPPoE pages. After saving the modification, restart the device. The external users could browse the Networked Device by the input of their domain name.